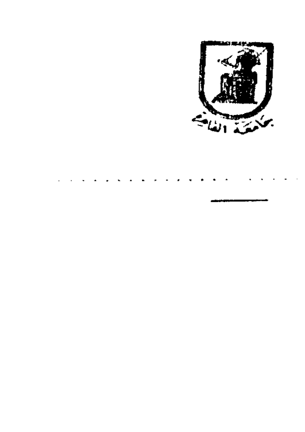
جامعة القاهرة
كلـية الطب البيطري
قـسم الأدويـــــــــــة

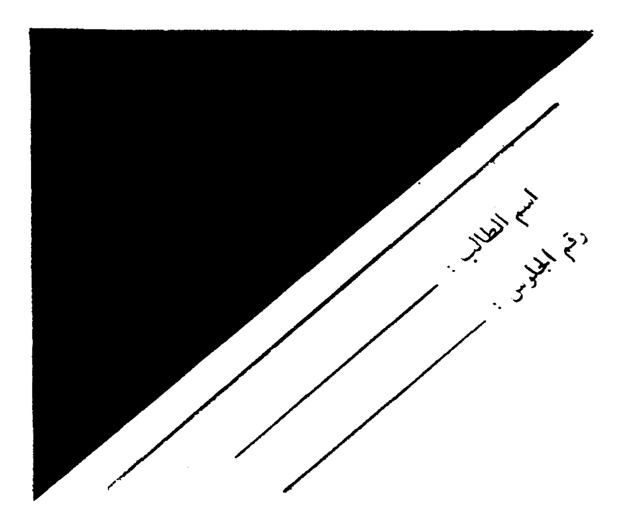
نـماذج امتحان مقرر الأدويـة (٣٠٣)

للفصل الدراسي الأول

أ٠د/ محمد محمد هاشـــم



كلية : ....



امتحــان دور : .... سنة /

المـــادة : ....

الفــــرقة : .... القسم : ....

مجمـوع الدرجـات

الســؤال	الدرجة	المصحح
الأول		
الثـانى ...		
الثالث . .		
الرابــع ...		
الخامس ...		
السادس ...		
الســابع ...		
الثـامن ...		
التاســع ...		
العــاشر ...		
مجموع الدرجات		

مجموع الدرجات (كتابة) : ....

ملحــوظة : على الطالب ان يكتب اجابته على الوجهين وان يجيب على الأسئلة المطلوبة فقط ولن يلتفت الى الاجابات الزائدة عن المطلوب .

(مركز جامعة القاهرة للطباعة والنشر)

1

A

Cairo University
Faculty of Veterinary Medicine
Department of Pharmacology

4/1/2003
Time: 2 hours
Course: 303

General Pharmacology Examination

Part 1

1) Classify antipyretic analgesics and give examples:

a-..

....

b-..

....

c-..

....

2) Mention the mechanism of action of:

a- Dicoumarol as anticoagulant:

....

....

b- Hexamine as urinary antiseptic:

....

....

c- Physostigmine as parasympathomimetic:

....

....

3) Give reasons for the following:

a-The use of adrenaline with procaine:

....

....

b- The use of probenecid with penicillins:

....

....

c- The use of atropine before volatile anaesthetics:

....

....

A



4) Classify Sympatholytics and give examples:

a-..

....

b-..

....

c-..

....

5) Mention 3 types of microsomal oxidation reactions:

a-..

....

b-..

....

c-..

....

Part 2

I) Put a mark (✓) or (X) infront of each of the following sentences to express if it is scientifically wright or wrong:

1- Prostaglandins are much more effective than oxytocin in inducing uterine contractions in the earlier months of pregnancy ....( ).

2- Drugs which acidify urine such as ascorbic acid are contraindicated during sulphonamide therapy ....( ).

3-Ammonium chloride induces gastric irritation which reflexly causes expectoration..( ).

4- Bioavailability is the process by which drugs cross the lipid portion of the cell membrane..( ).

5- A lubricant is only help normal defecation without increase in the intestinal motility ....( ).

6-The organic phosphorus compounds are irreversible inhibitors of choline acetylase enzymes..( ).



أ C

7- Acetylcholine is a chemical transmitter released from the preganglionic sympathetic nerves ....( ).

8- Atropine is contraindicated in all equine colics because of its potential to produce ileus .... ( ).

9-Warfarin is an anticoagulant acting by competition with vitamin K..............( ).

10- If 2 drugs act at the same receptors, their log dose-response curves will have similar slopes..( ).

11- Drugs which delay gastric emptying usually decrease the rate of absorption of concurrently administered drugs which are normally absorbed from the intestine .... ( ).

12- Caster oil is an indirect irritant purgative, commonly used for dogs and cats .( ).

13- The alveolar concentration of a gas can be increased by gases that increases the alveolar ventilation .... ( ).

14- Procaine is a local anaesthetic applied to the surface of skin or mucous membranes .... ( ).

15- Adrenaline produces its systemic actions following oral administration.........( ).

II) Mention only one main therapeutic use for each of the following drugs:

1- Pralidoxime: ....

2- Gitalin: ....

3- Krameria: ....

4- Sulphinpyrazone:. . ...

5- Dextromethorphane: ....

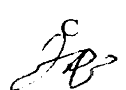
6- Methyl dopa (aldomet): ....

7- Delmadinone acetate: ....

8- Salbutamol: ....

9- Mephenesin: ....

10- Senega:..



1 D

III) Complete each of the following sentences with a name of one suitable drug:

1-.. is a chemical transmitter, synthesized from the amino acid phenylalanine and act mainly on α receptors.

2-................................ is an emetic acting centrally by stimulation of the CTZ.

3-.. is a calcium channel blocker, used to control arrhythmia of atrial origin.

4-.. is an alkaloid acting by inhibition of the postsynaptic inhibitory transmitter; glycin.

5-.. is a non steroidal anti-inflammatory drug, effective against visceral pain in case of equine colic.

6-.. is a diuretic acting by competitive antagonism with aldosterone hormone.

7-.. act as a sedative hypnotic by activation of α_2 receptors in the brain leading to inhibitory effect.

8-.. is an anticoagulant synthesized in the body. It is effective both in vivo and in vitro.

9-.. is an alkaloid obtained from opium. It acts as smooth muscle relaxant without analgesic effect.

10-.. is an extract of Spanish fly acting as aphrodisiac.

IV) Put the suitable words expressing the meaning of the following sentences:

1- The use of 2 drugs with opposite action, both drugs acting on the same receptor site .... (   ).

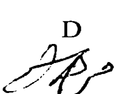
2- The main storage place of drugs in the body....(   ).

3- The potential of the drug to produce a particular effect at lower doses than those required to produce other effects...................... (   ).

4- Compounds which precipitate proteins of the intestinal mucosa to form a protective barrier for the underlaying tissues. ....(   ).

5- The mechanism by which drugs can move through aqueous channels of the membrane depending on the concentration gradient........... (   ).

D



6- The process in which drugs are converted into more water soluble and less toxic derivatives to be easily excreted from the body.. (   ).

7- Injection of a solution of local anaesthetic near a main nerve trunk to anaesthetize the region supplied by this trunk. ....(   ).

8- A group of opium alkaloids that include morphine, codeine and heroin...(   ).

9- The action of acetylcholine on the tissues innervated by the central cholinergic nerves...................... ....(   ).

10- The mixture of carbon dioxide and oxygen is called (   ).

V) Replace each of the following statements by a scientific term:

1- Drugs which stimulate the liver cells to secrete more bile (   ).

2- Drugs which are used to protect the mucous membrane of GIT in cases of ulcer or inflammation .... (   ).

3- Substances which can be taken orally to attach other materials to their surface without any chemical reaction ....(   ).

4- Drugs which increase heart rate and contractile power in acute heart failure .... (   ).

5- Drugs which increase excretion of uric acid in the urine (   ).

6- Drugs which stimulate contraction of the uterus before full term (   ).

7- Agents which can expell the excess gases from the stomach, rumen and intestine by relaxing the sphincters..............................(   ).

8- Drugs which can react with metallic ions in the cell forming inactive compounds .... (   ).

9- Drugs which stimulate bronchial glands to increase and liquify bronchial secretion and help their expulsion by coughing ....(   ).

10- Tissue hormones which are synthesized in most tissues in the body from free arachidonic acid and act as oxytocics .... (   ).

VI) Underline the only correct answer:

1- Is a bronchial dilator used as sublingual tablets:

- Amyl nitrite - Papaverine - Aminophylline - Nitroglycerine

F

2- Equine colic due to gastric tympany can be treated by:

- Caster oil - Nasogastric intubation - Papaverine - Trocarization of the upper flank

3- Stimulation of α adrenergic receptors induce:

- Bronchial dilatation - Dilatation of eye pupil - Hypotension - Vomiting

4- All are purgatives acting by stimulation of the mechanoreceptors in the intestinal wall, except:

- Agar agar - Methyl cellulose - Magnesium sulphate - Linseed oil

5- Carbachol is a drug usually used for treatment of:

- Bronchial asthma - Ruminal stasis - Bradycardia - Diarrhea

6- All are cardiac tonics except:

- Adrenaline - Digitoxin - Lanatocid A - Strophanthin

7- Is a derivative of ethacrynic acid acting as uricosuric diuretic:

- Probencid - Indacrinone - Aspirin - Calomel

8- The simple diffusion of a drug through cell membrane needs:

- High lipid solubility - Large molecular size - High pKa value - Ionization of the drug

9- Weak acids are excreted more in:

- Acid urine - Alkaline urine - Milk - Expired air

10- Drugs which stimulate the depressed vital centers in the medulla:

- Analeptics - Diaphoretics - Antipyretics - Analgesics

11- Drugs which decrease bacterial fermentation by killing or inhibiting rumen microflora.

- Antibiotics - Antitussives - Anthelmintics - Antizymotics

12- Is a hypertensive drug acting by direct stimulation of smooth muscles of blood capillaries.

- Noradrenaline - Adrenaline - Vasopressin - Ephedrine

13- One of the well known enzymes inducing drugs:

- Phenobarbitone - Strychnine - Atropine - Codeine

14- They are naturally occurring Xanthine derivatives except:

- Caffeine - Aminophylline - Theophylline - Theobromine

15- Is a skeletal muscle relaxant used commonly as pre-anaesthetic:

- Papaverine - Atropine - Gallamine - Adrenaline

F



كلية : ....

اسم الطالب :

رقم الجلوس :

امتحـــان دور : .... سنة /

المـــادة : ....

الغـــرفة : .... القسم : ....

مجمـوع الدرجــات

الســؤال	الدرجة	المصحح
الأول		
الثـــانى ...		
الثالث . .		
الرابــع ...		
الخامس ...		
السادس ...		
الســابع ...		
الثـــامن ...		
التاســع ...		
العـــاشر ...		
مجموع الدرجات		

مجموع الدرجات (كتابة) : ....

ملحــوظة : على الطالب ان يكتب اجابته على الوجهين وأن يجيب على الأسئلة المطلوبة فقط ولن يلتفت الى الاجابات الزائدة عن المطلوب .

(مركز جامعة القاهرة للطباعة والنشر)

2 I

Cairo University
Faculty of Veterinary Medicine
Department of Pharmacology

4/1/2003
Time: 2 hours
Course: 303

General Pharmacology Examination

Part 1

I) Replace each of the following statements by a scientific term:

1- Drugs which increase excretion of uric acid in the urine ( ).

2- Drugs which are used to protect the mucous membrane of GIT in cases of ulcer or inflammation .... ( ).

3- Drugs which stimulate bronchial glands to increase and liquify bronchial secretion and help their expulsion by coughing ....( ).

4- Drugs which stimulate the liver cells to secrete more bile ( ).

5- Drugs which can react with metallic ions in the cell forming inactive compounds .... ( ).

6- Drugs which stimulate contraction of the uterus before full term ( ).

7- Substances which can be taken orally to attach other materials to their surface without any chemical reaction ....( ).

8- Agents which can expell the excess gases from the stomach, rumen and intestine by relaxing the sphincters.....................( ).

9- Drugs which increase heart rate and contractile power in acute heart failure .... ( ).

10- Tissue hormones which are synthesized in most tissues in the body from free arachidonic acid and act as oxytocics .. ( ).

II) Put a mark (✓) or (X) infront of each of the following sentences to express if it is scientifically wright or wrong:

1- The alveolar concentration of a gas can be increased by gases that increases the alveolar ventilation .... ( ).

2-The organic phosphorus compounds are irreversible inhibitors of choline acetylase enzymes...( ).

3- Drugs which acidify urine such as ascorbic acid are contraindicated during sulphonamide therapy .... ( ).



I

4- Drugs which delay gastric emptying usually decrease the rate of absorption of concurrently administered drugs which are normally absorbed from the intestine .... (   ).

5- Adrenaline produces its systemic actions following oral administration.........(   ).

6- Prostaglandins are much more effective than oxytocin in inducing uterine contractions in the earlier months of pregnancy ....(   ).

7- Acetylcholine is a chemical transmitter released from the preganglionic sympathetic nerves ....(   ).

8- If 2 drugs act at the same receptors, their log dose-response curves will have similar slopes...(   ).

9- Atropine is contraindicated in all equine colics because of its potential to produce ileus .... (   ).

10-Ammonium chloride induces gastric irritation which reflexly causes expectoration..(   ).

11-Warfarin is an anticoagulant acting by competition with vitamin K.............(   ).

12- Bioavailability is the process by which drugs cross the lipid portion of the cell membrane..(   ).

13- Caster oil is an indirect irritant purgative, commonly used for dogs and cats .(   ).

14- Procaine is a local anaesthetic applied to the surface of skin or mucous membranes .... (   ).

15- A lubricant is only help normal defecation without increase in the intestinal motility ....(   ).

III) Put the suitable words expressing the meaning of the following sentences:

1- The mechanism by which drugs can move through aqueous channels of the membrane depending on the concentration gradient......... (   ).

2- The main storage place of drugs in the body....(   ).

3- The action of acetylcholine on the tissues innervated by the central cholinergic nerves....................... ....(   ).

4- The use of 2 drugs with opposite action, both drugs acting on the same receptor site. .... (   ).



5- A group of opium alkaloids that include morphine, codeine and heroin..( ).

6- The process in which drugs are converted into more water soluble and less toxic derivatives to be easily excreted from the body ( ).

7- The potential of the drug to produce a particular effect at lower doses than those required to produce other effects................ ( ).

8- Compounds which precipitate proteins of the intestinal mucosa to form a protective barrier for the underlaying tissues. ....( ).

9- Injection of a solution of local anaesthetic near a main nerve trunk to anaesthetize the region supplied by this trunk. ....( ).

10- The mixture of carbon dioxide and oxygen is called ( ).

IV) Complete each of the following sentences with a name of one suitable drug:

1-.. is a non steroidal anti-inflammatory drug, effective against visceral pain in case of equine colic.

2-.................................... is an emetic acting centrally by stimulation of the CTZ.

3-.. is an alkaloid obtained from opium. It acts as smooth muscle relaxant without analgesic effect.

4-.. is a chemical transmitter, synthesized from the amino acid phenylalanine and act mainly on α receptors.

5-.. is an anticoagulant synthesized in the body. It is effective both in vivo and in vitro.

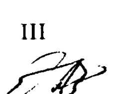
6-.. is a diuretic acting by competitive antagonism with aldosterone hormone.

7-.. is a calcium channel blocker, used to control arrhythmia of atrial origin.

8-.. act as a sedative hypnotic by activation of α_2 receptors in the brain leading to inhibitory effect.

9-.. is an alkaloid acting by inhibition of the postsynaptic inhibitory transmitter; glycin.

10-.. is an extract of Spanish fly acting as aphrodisiac.



V) Underline the only correct answer:

1- Carbachol is a drug usually used for treatment of:

- Bronchial asthma - Ruminal stasis - Bradycardia - Diarrhea

2- Equine colic due to gastric tympany can be treated by:

- Caster oil - Nasogastric intubation - Papaverine - Trocarization of the upper flank

3- Drugs which decrease bacterial fermentation by killing or inhibiting rumen microflora.

- Antibiotics - Antitussives - Anthelmintics - Antizymotics

4- Is a bronchial dilator used as sublingual tablets:

- Amyl nitrite - Papaverine - Aminophylline - Nitroglycerine

5- Weak acids are excreted more in:

- Acid urine - Alkaline urine - Milk - Expired air

6- All are cardiac tonics except:

- Adrenaline - Digitoxin - Lanatocid A - Strophanthin

7- Stimulation of α adrenergic receptors induce:

- Bronchial dilatation - Dilatation of eye pupil - Hypotension - Vomiting

8- The simple diffusion of a drug through cell membrane needs:

- High lipid solubility - Large molecular size - High pKa value - Ionization of the drug

9- All are purgatives acting by stimulation of the mechanoreceptors in the intestinal wall, except:

- Agar agar - Methyl cellulose - Magnesium sulphate - Linseed oil

10- Is a hypertensive drug acting by direct stimulation of smooth muscles of blood capillaries.

- Noradrenaline - Adrenaline - Vasopressin - Ephedrine

11- They are naturally occurring Xanthine derivatives except:

- Caffeine - Aminophylline - Theophylline - Theobromine

12- One of the well known enzymes inducing drugs:

- Phenobarbitone - Strychnine - Atropine - Codeine

13- Is a derivative of ethacrynic acid acting as uricosuric diuretic:

- Probencid - Indacrinone - Aspirin - Calomel

14- Drugs which stimulate the depressed vital centers in the medulla:

- Analeptics - Diaphoretics - Antipyretics - Analgesics

15- Is a skeletal muscle relaxant used commonly as pre-anaesthetic:

- Papaverine - Atropine - Gallamine - Adrenaline

IV) Mention only one main therapeutic use for each of the following drugs:

1- Dextromethorphane: ....

2- Gitalin: ....

3- Mephenesin: ....

4- Pralidoxime: ....

5- Salbutamol: ....

6- Methyl dopa (aldomet): ....

7- Krameria: ....

8- Delmadinone acetate: ....

9- Sulphinpyrazone:..

10- Senega:..

Part 2

1) Give reasons for the following:

a- The use of probencid with penicillins:

....

....

b- The use of atropine before volatile anaesthetics:

....

....

c-The use of adrenaline with procaine:

....

....

2) Classify Sympatholytics and give examples:

a-...

....

b-...

....

c-...

....

3) Mention 3 types of microsomal oxidation reactions:

a-...

....

b-...

....

c-...

....

4) Classify antipyretic analgesics and give examples:

a-...

....

b-...

....

c-...

....

5) Mention the mechanism of action of:

a- Hexamine as urinary antiseptic:

....

....

b- Physostigmine as parasympathomimetic:

....

....

c- Dicoumarol as anticoagulant:

....

....



كليــة : ....

اسم الطالب :

رقم الجلوس :

امتحان دور : .... سنة ٢

السـؤال	الدرجـة	المصحح
الأول		
الثانى		
الثالث		
الرابع		
الخامس		
السادس		
السابع		
الثامن		
التاسع		
العاشر		
مجموع الدرجات		

المــادة : ....

الفرقة : .... القسم : ....

مجمـوع الدرجـات

مجموع الدرجات (كتابة) : ....

ملحـوظة : على الطالب ان يكتب اجابته على الوجهين وان يجيب على الأسئلة المطلـوبة فقط ولن يلتفت الى الاجابات الزائدة عن المطلوب .

(مركز جامعة القاهرة للطباعة والنشر)

Cairo University
Faculty of Veterinary Medicine
Department of Pharmacology

4/1/2003
Time: 2 hours
Course: 303

General Pharmacology Examination

Part 1

I) Complete each of the following sentences with a name of one suitable drug:

1-..................................... is an emetic acting centrally by stimulation of the CTZ.

2-.. is an alkaloid acting by inhibition of the postsynaptic inhibitory transmitter; glycin.

3-.. is a non steroidal anti-inflammatory drug, effective against visceral pain in case of equine colic.

4-.. act as a sedative hypnotic by activation of α_2 receptors in the brain leading to inhibitory effect.

5-.. is an alkaloid obtained from opium. It acts as smooth muscle relaxant without analgesic effect.

6-.. is a calcium channel blocker, used to control arrhythmia of atrial origin.

7-.. is an anticoagulant synthesized in the body. It is effective both in vivo and in vitro.

8-.. is a diuretic acting by competitive antagonism with aldosterone hormone.

9-.. is an extract of Spanish fly acting as aphrodisiac.

10-.. is a chemical transmitter, synthesized from the amino acid phenylalanine and act mainly on α receptors.

II) Underline the only correct answer:

1- Equine colic due to gastric tympany can be treated by:

- Caster oil - Nasogastric intubation - Papaverine - Trocarization of the upper flank

2- The simple diffusion of a drug through cell membrane needs:

- High lipid solubility - Large molecular size - High pKa value - Ionization of the drug

3- Carbachol is a drug usually used for treatment of:

- Bronchial asthma - Ruminal stasis - Bradycardia - Diarrhea

4- All are purgatives acting by stimulation of the mechanoreceptors in the intestinal wall, except:

- Agar agar - Methyl cellulose - Magnesium sulphate - Linseed oil

5- Drugs which decrease bacterial fermentation by killing or inhibiting rumen microflora.

- Antibiotics - Antitussives - Anthelmintics - Antizymotics

6- Stimulation of α adrenergic receptors induce:

- Bronchial dilatation - Dilatation of eye pupil - Hypotension - Vomiting

7- Weak acids are excreted more in:

- Acid urine - Alkaline urine - Milk - Expired air

8- All are cardiac tonics except:

- Adrenaline - Digitoxin - Lanatocid A - Strophanthin

9- Is a hypertensive drug acting by direct stimulation of smooth muscles of blood capillaries.

- Noradrenaline - Adrenaline - Vasopressin - Ephedrine

10- Is a bronchial dilator used as sublingual tablets:

- Amyl nitrite - Papaverine - Aminophylline - Nitroglycerine

11- Is a derivative of ethacrynic acid acting as uricosuric diuretic:

- Probencid - Indacrinone - Aspirin - Calomel

12- They are naturally occurring Xanthine derivatives except:

- Caffeine - Aminophylline - Theophylline - Theobromine

13- Drugs which stimulate the depressed vital centers in the medulla:

- Analeptics - Diaphoretics - Antipyretics - Analgesics

14- Is a skeletal muscle relaxant used commonly as pre-anaesthetic:

- Papaverine - Atropine - Gallamine - Adrenaline

15- One of the well known enzymes inducing drugs:

- Phenobarbitone - Strychnine - Atropine - Codeine

III) Mention only one main therapeutic use for each of the following drugs:

1- Gitalin: ....

2- Sulphinpyrazone: ....

3- Dextromethorphane: ....

4- Delmadinone acetate: ....

5- Mephenesin: ....

6- Krameria: ....

7- Salbutamol: ....

8- Methyl dopa (aldomet): ....

9- Senega: ....

10- Pralidoxime: ....

IV) Put a mark (✓) or (X) infront of each of the following sentences to express if it is scientifically wright or wrong:

1- Drugs which acidify urine such as ascorbic acid are contraindicated during sulphonamide therapy .... ( ).

2- Bioavailability is the process by which drugs cross the lipid portion of the cell membrane..( ).

3-The organic phosphorus compounds are irreversible inhibitors of choline acetylase enzymes..( ).

4-Warfarin is an anticoagulant acting by competition with vitamin K...............( ).

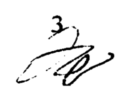
5- Drugs which delay gastric emptying usually decrease the rate of absorption of concurrently administered drugs which are normally absorbed from the intestine .... ( ).

6-Ammonium chloride induces gastric irritation which reflexly causes expectoration...( ).

7- If 2 drugs act at the same receptors, their log dose-response curves will have similar slopes..( ).

8- Acetylcholine is a chemical transmitter released from the preganglionic sympathetic nerves ....( ).

9- Caster oil is an indirect irritant purgative, commonly used for dogs and cats ...( ).



10- Prostaglandins are much more effective than oxytocin in inducing uterine contractions in the earlier months of pregnancy ....( ).

11- Procaine is a local anaesthetic applied to the surface of skin or mucous membranes ....( ).

12- The alveolar concentration of a gas can be increased by gases that increases the alveolar ventilation ....( ).

13- A lubricant is only help normal defecation without increase in the intestinal motility ....( ).

14- Adrenaline produces its systemic actions following oral administration........( ).

15- Atropine is contraindicated in all equine colics because of its potential to produce ileus ....( ).

V) Put the suitable words expressing the meaning of the following sentences:

1- The main storage place of drugs in the body....( ).

2- Compounds which precipitate proteins of the intestinal mucosa to form a protective barrier for the underlaying tissues. ....( ).

3- The mechanism by which drugs can move through aqueous channels of the membrane depending on the concentration gradient......... ( ).

4- Injection of a solution of local anaesthetic near a main nerve trunk to anaesthetize the region supplied by this trunk. ....( ).

5- The action of acetylcholine on the tissues innervated by the central cholinergic nerves....................... ....( ).

6- The potential of the drug to produce a particular effect at lower doses than those required to produce other effects.................. ( ).

7- A group of opium alkaloids that include morphine, codeine and heroin...( ).

8- The process in which drugs are converted into more water soluble and less toxic derivatives to be easily excreted from the body .....( ).

9- The mixture of carbon dioxide and oxygen is called ( ).

10- The use of 2 drugs with opposite action, both drugs acting on the same receptor site .... ( ).

VI) Replace each of the following statements by a scientific term:

1- Drugs which are used to protect the mucous membrane of GIT in cases of ulcer or inflammation .... (   ).

2- Drugs which increase heart rate and contractile power in acute heart failure .... (   ).

3- Drugs which increase excretion of uric acid in the urine (   ).

4- Agents which can expell the excess gases from the stomach, rumen and intestine by relaxing the sphincters....................................(   ).

5- Drugs which stimulate bronchial glands to increase and liquify bronchial secretion and help their expulsion by coughing ....(   ).

6- Substances which can be taken orally to attach other materials to their surfaçe without any chemical reaction ....(   ).

7- Drugs which can react with metallic ions in the cell forming inactive compounds .... (   ).

8- Drugs which stimulate contraction of the uterus before full term (   ).

9- Tissue hormones which are synthesized in most tissues in the body from free arachidonic acid and act as oxytocics .... (   ).

10- Drugs which stimulate the liver cells to secrete more bile (   ).

Part 2

1) Mention the mechanism of action of:

a- Physostigmine as parasympathomimetic:

....

....

b- Dicoumarol as anticoagulant:

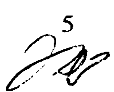
....

....

c- Hexamine as urinary antiseptic:

....

....



2) Classify antipyretic analgesics and give examples:

a-……………………………………………………………………………………

……………………………………………………………………………………

b-……………………………………………………………………………………

……………………………………………………………………………………

c-……………………………………………………………………………………

……………………………………………………………………………………

3) Classify Sympatholytics and give examples:

a-……………………………………………………………………………………

……………………………………………………………………………………

b-……………………………………………………………………………………

……………………………………………………………………………………

c-……………………………………………………………………………………

……………………………………………………………………………………

4) Mention 3 types of microsomal oxidation reactions:

a-……………………………………………………………………………………

……………………………………………………………………………………

b-……………………………………………………………………………………

……………………………………………………………………………………

c-……………………………………………………………………………………

……………………………………………………………………………………

5) Give reasons for the following:

a- The use of atropine before volatile anaesthetics:

……………………………………………………………………………………

……………………………………………………………………………………

b-The use of adrenaline with procaine:

……………………………………………………………………………………

……………………………………………………………………………………

c- The use of probencid with penicillins:

……………………………………………………………………………………

……………………………………………………………………………………





كلية : ....

اسم الطالب :

رقم الجلوس :

امتحـــان دور : .... سنة /

المـــادة : ....

الفـــرقة : .... القسم : ....

مجمـوع الدرجـات

السـؤال	الدرجة	المصحح
الأول		
الثـانى ...		
الثالث ...		
الرابـع ...		
الخامس ...		
السادس ...		
السـابع ...		
الثـامن ...		
التاسـع ...		
العـاشر ...		
مجموع الدرجات		

مجموع الدرجات (كتابة) : ....

ملحـوظة : على الطالب ان يكتب اجابته على الوجهين وان يجيب على الأسئلة المطلوبة فقط ولن يلتفت الى الاجابات الزائدة عن المطلوب .

(مركز جامعة القاهرة للطباعة والنشر)

(4)

i

Cairo University
Faculty of Veterinary Medicine
Department of Pharmacology

4/1/2003
Time: 2 hours
Course: 303

General Pharmacology Examination

Part 1

I) Put the suitable words expressing the meaning of the following sentences:

1- Compounds which precipitate proteins of the intestinal mucosa to form a protective barrier for the underlaying tissues. ....( ).

2- The main storage place of drugs in the body...( ).

3- Injection of a solution of local anaesthetic near a main nerve trunk to anaesthetize the region supplied by this trunk. ....( ).

4- The mechanism by which drugs can move through aqueous channels of the membrane depending on the concentration gradient......... ( ).

5- The potential of the drug to produce a particular effect at lower doses than those required to produce other effects.................. ( ).

6- A group of opium alkaloids that include morphine, codeine and heroin..( ).

7- The action of acetylcholine on the tissues innervated by the central cholinergic nerves...( ).

8- The process in which drugs are converted into more water soluble and less toxic derivatives to be easily excreted from the body .....( ).

9- The use of 2 drugs with opposite action, both drugs acting on the same receptor site .... ( ).

10-The mixture of carbon dioxide and oxygen is called ( ).

II) Mention only one main therapeutic use for each of the following drugs:

1- Sulphinpyrazone:...

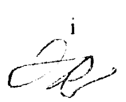
2- Gitalin: ....

3- Delmadinone acetate: ....

4- Senega: ....

5- Pralidoxime: ....

i



6- Dextromethorphane: ....
7- Krameria: ....
8- Salbutamol: ....
9- Mephenesin: ....
10- Methyl dopa (aldomet):...

III) Replace each of the following statements by a scientific term:

1- Drugs which increase heart rate and contractile power in acute heart failure .... (   ).

2- Drugs which are used to protect the mucous membrane of GIT in cases of ulcer or inflammation .... (   ).

3- Agents which can expell the excess gases from the stomach, rumen and intestine by relaxing the sphincters.....................................(   ).

4- Drugs which increase excretion of uric acid in the urine. (   ).

5- Substances which can be taken orally to attach other materials to their surface without any chemical reaction ....(   ).

6- Drugs which can react with metallic ions in the cell forming inactive compounds .... (   ).

7- Drugs which stimulate bronchial glands to increase and liquify bronchial secretion and help their expulsion by coughing ....(   ).

8- Drugs which stimulate contraction of the uterus before full term (   ).

9- Drugs which stimulate the liver cells to secrete more bile. (   ).

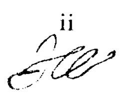
10- Tissue hormones which are synthesized in most tissues in the body from free arachidonic acid and act as oxytocics .... (   ).

IV) Complete each of the following sentences with a name of one suitable drug:

1-... is an alkaloid acting by inhibition of the postsynaptic inhibitory transmitter; glycin.

2-...................................... is an emetic acting centrally by stimulation of the CTZ.

3-... act as a sedative hypnotic by activation of α_2 receptors in the brain leading to inhibitory effect.



4-... is a non steroidal anti-inflammatory drug, effective against visceral pain in case of equine colic.

5-... is a calcium channel blocker, used to control arrhythmia of atrial origin.

6-... is an anticoagulant synthesized in the body. It is effective both in vivo and in vitro.

7-... is an alkaloid obtained from opium. It acts as smooth muscle relaxant without analgesic effect.

8-... is a diuretic acting by competitive antagonism with aldosterone hormone.

9-.. is a chemical transmitter, synthesized from the amino acid phenylalanine and act mainly on α receptors.

10-... is an extract of Spanish fly acting as aphrodisiac.

V) Put a mark (✓) or (X) infront of each of the following sentences to express if it is scientifically wright or wrong:

1- Bioavailability is the process by which drugs cross the lipid portion of the cell membrane...( ).

2- Drugs which acidify urine such as ascorbic acid are contraindicated during sulphonamide therapy .... ( ).

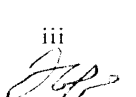
3-Warfarin is an anticoagulant acting by competition with vitamin K...............( ).

4-The organic phosphorus compounds are irreversible inhibitors of choline acetylase enzymes...( ).

5-Ammonium chloride induces gastric irritation which reflexly causes expectoration...( ).

6- If 2 drugs act at the same receptors, their log dose-response curves will have similar slopes...( ).

7- Drugs which delay gastric emptying usually decrease the rate of absorption of concurrently administered drugs which are normally absorbed from the intestine .... ( ).



8- Acetylcholine is a chemical transmitter released from the preganglionic sympathetic nerves ....( ).

9- Prostaglandins are much more effective than oxytocin in inducing uterine contractions in the earlier months of pregnancy ....( ).

10- Caster oil is an indirect irritant purgative, commonly used for dogs and cats..( ).

11- Procaine is a local anaesthetic applied to the surface of skin or mucous membranes .... ( ).

12- Atropine is contraindicated in all equine colics because of its potential to produce ileus .... ( ).

13- A lubricant is only help normal defecation without increase in the intestinal motility ....( ).

14- The alveolar concentration of a gas can be increased by gases that increases the alveolar ventilation .... ( ).

15- Adrenaline produces its systemic actions following oral administration.......( ).

VI) Underline the only correct answer:

1- All are purgatives acting by stimulation of the mechanoreceptors in the intestinal wall, except:

- Agar agar - Methyl cellulose - Magnesium sulphate - Linseed oil

2- Equine colic due to gastric tympany can be treated by:

- Caster oil - Nasogastric intubation - Papaverine - Trocarization of the upper flank

3- The simple diffusion of a drug through cell membrane needs:

- High lipid solubility - Large molecular size - High pKa value - Ionization of the drug

4- Carbachol is a drug usually used for treatment of:

- Bronchial asthma - Ruminal stasis - Bradycardia - Diarrhea

5- Stimulation of α adrenergic receptors induce:

- Bronchial dilatation - Dilatation of eye pupil - Hypotension - Vomiting

6- Weak acids are excreted more in:

- Acid urine - Alkaline urine - Milk - Expired air

7- Drugs which decrease bacterial fermentation by killing or inhibiting rumen microflora.

- Antibiotics - Antitussives - Anthelmintics - Antizymotics

[4] v

8- All are cardiac tonics except:
- Adrenaline - Digitoxin - Lanatocid A - Strophanthin

9- Is a bronchial dilator used as sublingual tablets:
- Amyl nitrite - Papaverine - Aminophylline - Nitroglycerine

10- One of the well known enzymes inducing drugs:
- Phenobarbitone - Strychnine - Atropine - Codeine

11- Is a derivative of ethacrynic acid acting as uricosuric diuretic:
- Probencid - Indacrinone - Aspirin - Calomel

12- Is a hypertensive drug acting by direct stimulation of smooth muscles of blood capillaries.
- Noradrenaline - Adrenaline - Vasopressin - Ephedrine

13- Drugs which stimulate the depressed vital centers in the medulla:
- Analeptics - Diaphoretics - Antipyretics - Analgesics

14- They are naturally occurring Xanthine derivatives except:
- Caffeine - Aminophylline - Theophylline - Theobromine

15- Is a skeletal muscle relaxant used commonly as pre-anaesthetic:
- Papaverine - Atropine - Gallamine - Adrenaline

Part 2

1) Classify Sympatholytics and give examples:

a-..

....

b-..

....

c-..

....

2) Give reasons for the following:

a-The use of adrenaline with procaine:

....

....

v

b- The use of atropine before volatile anaesthetics:

....

....

c- The use of probencid with penicillins:

....

....

3) Mention the mechanism of action of:

a- Dicoumarol as anticoagulant:

....

....

b- Hexamine as urinary antiseptic:

....

....

c- Physostigmine as parasympathomimetic:

....

....

4) Classify antipyretic analgesics and give examples:

a-...

....

b-...

....

c-...

....

5) Mention 3 types of microsomal oxidation reactions:

a-...

....

b-...

....

c-...

....



كليــة : ....

اسم الطالب

رقم الجلوس

امتحان دور : .... سنة 7

المــادة : ....

الفرقة : .... القسم : ....

مجمــوع الدرجــات

السـؤال	الدرجـة	المصحح
الأول		
الثانى		
الثالث		
الرابع		
الخامس		
السادس		
السابع		
الثامن		
التاسع		
العاشر		
مجموع الدرجات		

مجموع الدرجات (كتابة) : ....

ملحـوظة : على الطالب ان يكتب اجابته على الوجهين وان يجيب على الأسئلة المطلـوبة فقط ولن يلتفت الى الاجابات الزائدة عن المطلوب .

(مركز جامعة القاهرة للطباعة والنشر)

 i

Cairo University
Faculty of Veterinary Medicine
Department of Pharmacology

4/1/2003
Time: 2 hours
Course: 303

General Pharmacology Examination

Part 1

I) Put the suitable words expressing the meaning of the following sentences:

1- Compounds which precipitate proteins of the intestinal mucosa to form a protective barrier for the underlaying tissues. ....( ).

2- The main storage place of drugs in the body...( ).

3- Injection of a solution of local anaesthetic near a main nerve trunk to anaesthetize the region supplied by this trunk. ....( ).

4- The mechanism by which drugs can move through aqueous channels of the membrane depending on the concentration gradient......... ( ).

5- The potential of the drug to produce a particular effect at lower doses than those required to produce other effects.................. ( ).

6- A group of opium alkaloids that include morphine, codeine and heroin..( ).

7- The action of acetylcholine on the tissues innervated by the central cholinergic nerves...................... ....( ).

8- The process in which drugs are converted into more water soluble and less toxic derivatives to be easily excreted from the body .....( ).

9- The use of 2 drugs with opposite action, both drugs acting on the same receptor site .... ( ).

10-The mixture of carbon dioxide and oxygen is called ( ).

II) Mention only one main therapeutic use for each of the following drugs:

1- Sulphinpyrazone:..

2- Gitalin: ....

3- Delmadinone acetate: ....

4- Senega: ....

5- Pralidoxime: ....

i



6- Dextromethorphane: ....

7- Krameria: ....

8- Salbutamol: ....

9- Mephenesin: ....

10- Methyl dopa (aldomet):...

III) Replace each of the following statements by a scientific term:

1- Drugs which increase heart rate and contractile power in acute heart failure .... (   ).

2- Drugs which are used to protect the mucous membrane of GIT in cases of ulcer or inflammation .... (   ).

3- Agents which can expell the excess gases from the stomach, rumen and intestine by relaxing the sphincters...................................(   ).

4- Drugs which increase excretion of uric acid in the urine. (   ).

5- Substances which can be taken orally to attach other materials to their surface without any chemical reaction ....(   ).

6- Drugs which can react with metallic ions in the cell forming inactive compounds .... (   ).

7- Drugs which stimulate bronchial glands to increase and liquify bronchial secretion and help their expulsion by coughing ....(   ).

8- Drugs which stimulate contraction of the uterus before full term (   ).

9- Drugs which stimulate the liver cells to secrete more bile. (   ).

10- Tissue hormones which are synthesized in most tissues in the body from free arachidonic acid and act as oxytocics .... (   ).

IV) Complete each of the following sentences with a name of one suitable drug:

1-... is an alkaloid acting by inhibition of the postsynaptic inhibitory transmitter; glycin.

2-.................................... is an emetic acting centrally by stimulation of the CTZ.

3-... act as a sedative hypnotic by activation of α_2 receptors in the brain leading to inhibitory effect.

4-.. is a non steroidal anti-inflammatory drug, effective against visceral pain in case of equine colic.

5-.. is a calcium channel blocker, used to control arrhythmia of atrial origin.

6-.. is an anticoagulant synthesized in the body. It is effective both in vivo and in vitro.

7-.. is an alkaloid obtained from opium. It acts as smooth muscle relaxant without analgesic effect.

8-.. is a diuretic acting by competitive antagonism with aldosterone hormone.

9-... is a chemical transmitter, synthesized from the amino acid phenylalanine and act mainly on α receptors.

10-... is an extract of Spanish fly acting as aphrodisiac.

V) Put a mark (✓) or (X) infront of each of the following sentences to express if it is scientifically wright or wrong:

1- Bioavailability is the process by which drugs cross the lipid portion of the cell membrane..( ).

2- Drugs which acidify urine such as ascorbic acid are contraindicated during sulphonamide therapy .... ( ).

3-Warfarin is an anticoagulant acting by competition with vitamin K...............( ).

4-The organic phosphorus compounds are irreversible inhibitors of choline acetylase enzymes..( ).

5-Ammonium chloride induces gastric irritation which reflexly causes expectoration..( ).

6- If 2 drugs act at the same receptors, their log dose-response curves will have similar slopes..( ).

7- Drugs which delay gastric emptying usually decrease the rate of absorption of concurrently administered drugs which are normally absorbed from the intestine .... ( ).



8- Acetylcholine is a chemical transmitter released from the preganglionic sympathetic nerves ....( ).

9- Prostaglandins are much more effective than oxytocin in inducing uterine contractions in the earlier months of pregnancy ....( ).

10- Caster oil is an indirect irritant purgative, commonly used for dogs and cats..( ).

11- Procaine is a local anaesthetic applied to the surface of skin or mucous membranes .... ( ).

12- Atropine is contraindicated in all equine colics because of its potential to produce ileus .... ( ).

13- A lubricant is only help normal defecation without increase in the intestinal motility ....( ).

14- The alveolar concentration of a gas can be increased by gases that increases the alveolar ventilation .... ( ).

15- Adrenaline produces its systemic actions following oral administration.......( ).

VI) Underline the only correct answer:

1- All are purgatives acting by stimulation of the mechanoreceptors in the intestinal wall, except:

- Agar agar - Methyl cellulose - Magnesium sulphate - Linseed oil

2- Equine colic due to gastric tympany can be treated by:

- Caster oil - Nasogastric intubation - Papaverine - Trocarization of the upper flank

3- The simple diffusion of a drug through cell membrane needs:

- High lipid solubility - Large molecular size - High pKa value - Ionization of the drug

4- Carbachol is a drug usually used for treatment of:

- Bronchial asthma - Ruminal stasis - Bradycardia - Diarrhea

5- Stimulation of α adrenergic receptors induce:

- Bronchial dilatation - Dilatation of eye pupil - Hypotension - Vomiting

6- Weak acids are excreted more in:

- Acid urine - Alkaline urine - Milk - Expired air

7- Drugs which decrease bacterial fermentation by killing or inhibiting rumen microflora.

- Antibiotics - Antitussives - Anthelmintics - Antizymotics

[41] v

8- All are cardiac tonics except:

- Adrenaline - Digitoxin - Lanatocid A - Strophanthin

9- Is a bronchial dilator used as sublingual tablets:

- Amyl nitrite - Papaverine - Aminophylline - Nitroglycerine

10- One of the well known enzymes inducing drugs:

- Phenobarbitone - Strychnine - Atropine - Codeine

11- Is a derivative of ethacrynic acid acting as uricosuric diuretic:

- Probencid - Indacrinone - Aspirin - Calomel

12- Is a hypertensive drug acting by direct stimulation of smooth muscles of blood capillaries.

- Noradrenaline - Adrenaline - Vasopressin - Ephedrine

13- Drugs which stimulate the depressed vital centers in the medulla:

- Analeptics - Diaphoretics - Antipyretics - Analgesics

14- They are naturally occurring Xanthine derivatives except:

- Caffeine - Aminophylline - Theophylline - Theobromine

15- Is a skeletal muscle relaxant used commonly as pre-anaesthetic:

- Papaverine - Atropine - Gallamine - Adrenaline

Part 2

1) Classify Sympatholytics and give examples:

a-..

....

b-..

....

c-..

....

2) Give reasons for the following:

a-The use of adrenaline with procaine:

....

....

v

b- The use of atropine before volatile anaesthetics:

....

....

c- The use of probencid with penicillins:

....

....

3) Mention the mechanism of action of:

a- Dicoumarol as anticoagulant:

....

....

b- Hexamine as urinary antiseptic:

....

....

c- Physostigmine as parasympathomimetic:

....

....

4) Classify antipyretic analgesics and give examples:

a-..

....

b-..

....

c-..

....

5) Mention 3 types of microsomal oxidation reactions:

a-..

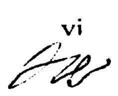
....

b-..

....

c-..

....





كلية : ....

اسم الطالب :

رقم الجلوس :

امتحان دور : .... سنة /

المادة : ....

الفرقة : .... القسم : ....

مجموع الدرجات

السؤال	الدرجة	المصحح
الأول		
الثاني ...		
الثالث ...		
الرابع ...		
الخامس ...		
السادس ...		
السابع ...		
الثامن ...		
التاسع ...		
العاشر ...		
مجموع الدرجات		

مجموع الدرجات (كتابة) : ....

ملحوظة : على الطالب أن يكتب اجابته على الوجهين وان يجيب على الأسئلة المطلوبة فقط ولن يلتفت الى الاجابات الزائدة عن المطلوب .

(مركز جامعة القاهرة للطباعة والنشر)



Cairo University
Faculty of Veterinary Medicine
Department of Pharmacology

4/1/2003
Time: 2 hours
Course: 303

General Pharmacology Examination

Part 1

I) Mention only one main therapeutic use for each of the following drugs:

1- Gitalin: ....

2- Methyl dopa (aldomet):..

3- Mephenesin: ....

4- Delmadinone acetate: ....

5- Dextromethorphane: ....

6- Senega: ....

7- Pralidoxime:...

8- Krameria: ....

9- Sulphinpyrazone:..

10- Salbutamol: ....

II) Underline the only correct answer:

1- Is a skeletal muscle relaxant used commonly as pre-anaesthetic:

- Papaverine - Atropine - Gallamine - Adrenaline

2- Equine colic due to gastric tympany can be treated by:

- Caster oil - Nasogastric intubation - Papaverine - Trocarization of the upper flank

3- Drugs which stimulate the depressed vital centers in the medulla:

- Analeptics - Diaphoretics - Antipyretics - Analgesics

4- The simple diffusion of a drug through cell membrane needs:

- High lipid solubility - Large molecular size - High pKa value - Ionization of the drug

5- One of the well known enzymes inducing drugs:

- Phenobarbitone - Strychnine - Atropine - Codeine

6- Is a derivative of ethacrynic acid acting as uricosuric diuretic:

- Probencid - Indacrinone - Aspirin - Calomel

7- Carbachol is a drug usually used for treatment of:

- Bronchial asthma - Ruminal stasis - Bradycardia - Diarrhea

[5]

8- Stimulation of α adrenergic receptors induce:

- Bronchial dilatation - Dilatation of eye pupil - Hypotension - Vomiting

9- Is a hypertensive drug acting by direct stimulation of smooth muscles of blood capillaries.

- Noradrenaline - Adrenaline - Vasopressin - Ephedrine

10- Weak acids are excreted more in:

- Acid urine - Alkaline urine - Milk - Expired air

11- Drugs which decrease bacterial fermentation by killing or inhibiting rumen microflora.

- Antibiotics - Antitussives - Anthelmintics - Antizymotics

12- All are purgatives acting by stimulation of the mechanoreceptors in the intestinal wall, except:

- Agar agar - Methyl cellulose - Magnesium sulphate - Linseed oil

13- All are cardiac tonics except:

- Adrenaline - Digitoxin - Lanatocid A - Strophanthin

14- Is a bronchial dilator used as sublingual tablets:

- Amyl nitrite - Papaverine - Aminophylline - Nitroglycerine

15- They are naturally occurring Xanthine derivatives except:

- Caffeine - Aminophylline - Theophylline - Theobromine

III) Put the suitable words expressing the meaning of the following sentences:

1- The main storage place of drugs in the body.........( ).

2- The process in which drugs are converted into more water soluble and less toxic derivatives to be easily excreted from the body ( ).

3- The mechanism by which drugs can move through aqueous channels of the membrane depending on the concentration gradient......... ( ).

4-The mixture of carbon dioxide and oxygen is called ..... ( ).

5- Injection of a solution of local anaesthetic near a main nerve trunk to anaesthetize the region supplied by this trunk. ....( ).

6- The potential of the drug to produce a particular effect at lower doses than those required to produce other effects................ ( ).

7- A group of opium alkaloids that include morphine, codeine and heroin..................
....( ).

8- The action of acetylcholine on the tissues innervated by the central cholinergic nerves...................... ....( ).

9- Compounds which precipitate proteins of the intestinal mucosa to form a protective barrier for the underlaying tissues. ....( ).

10- The use of 2 drugs with opposite action, both drugs acting on the same receptor site
......................................( ).

IV) Put a mark (✓) or (X) infront of each of the following sentences to express if it is scientifically wright or wrong:

1- Drugs, which acidify urine such as ascorbic acid, are contraindicated during sulphonamide therapy. .... ( ).

2- Adrenaline produces its systemic actions following oral administration.........( ).

3- A lubricant is only help normal defecation without increase in the intestinal motility
....( ).

4-Warfarin is an anticoagulant acting by competition with vitamin K...............( ).

5-The organic phosphorus compounds are irreversible inhibitors of choline acetylase enzymes...( ).

6- Caster oil is an indirect irritant purgative, commonly used for dogs and cats....( ).

7- Atropine is contraindicated in all equine colics because of its potential to produce ileus
.... ( ).

8-Ammonium chloride induces gastric irritation which reflexly causes expectoration...( ).

9- If 2 drugs act at the same receptors, their log dose-response curves will have similar slopes...( ).

10- Drugs which delay gastric emptying usually decrease the rate of absorption of concurrently administered drugs which are normally absorbed from the intestine
.... ( ).

11- Bioavailability is the process by which drugs cross the lipid portion of the cell membrane...( ).

12- Acetylcholine is a chemical transmitter released from the preganglionic sympathetic nerves ....( ).

13- Procaine is a local anaesthetic applied to the surface of skin or mucous membranes .... ( ).

14- Prostaglandins are much more effective than oxytocin in inducing uterine contractions in the earlier months of pregnancy ....( ).

15- The alveolar concentration of a gas can be increased by gases that increases the alveolar ventilation .... ( ).

V) Replace each of the following statements by a scientific term:

1- Tissue hormones which are synthesized in most tissues in the body from free arachidonic acid and act as oxytocics .... ( ).

2- Agents which can expell the excess gases from the stomach, rumen and intestine by relaxing the sphincters...( ).

3- Substances which can be taken orally to attach other materials to their surface without any chemical reaction ....( ).

4- Drugs which can react with metallic ions in the cell forming inactive compounds .... ( ).

5- Drugs which increase excretion of uric acid in the urine. ..( ).

6- Drugs which stimulate bronchial glands to increase and liquify bronchial secretion and help their expulsion by coughing ....( ).

7- Drugs which increase heart rate and contractile power in acute heart failure .... ( ).

8- Drugs which are used to protect the mucous membrane of GIT in cases of ulcer or inflammation .... ( ).

9- Drugs which stimulate contraction of the uterus before full term ( ).

10- Drugs which stimulate the liver cells to secrete more bile ...... ( ).

VI) Complete each of the following sentences with a name of one suitable drug:

1- ... ... is an extract of Spanish fly acting as aphrodisiac.

2-.. act as a sedative hypnotic by activation of α_2 receptors in the brain leading to inhibitory effect.

3-.. is a non-steroidal anti-inflammatory drug, effective against visceral pain in case of equine colic.

4- ... ... is an emetic acting centrally by stimulation of the CTZ.

5-...................................... is an anticoagulant synthesized in the body. It is effective both in vivo and in vitro.

6-...................................... is a calcium channel blocker, used to control arrhythmia of atrial origin.

7-... is an alkaloid obtained from opium. It acts as smooth muscle relaxant without analgesic effect.

8-... is an alkaloid acting by inhibition of the postsynaptic inhibitory transmitter; glycin.

9- ... ... is a diuretic acting by competitive antagonism with aldosterone hormone.

10-.. is a chemical transmitter, synthesized from the amino acid phenylalanine and act mainly on α receptors.

Part 2

1) Mention 3 types of microsomal oxidation reactions:

a-..

....

b-..

....

c-..

....

2) Mention the mechanism of action of:

a- Dicoumarol as anticoagulant:

....

....

[5]

b- Hexamine as urinary antiseptic:

... ...

... ...

c- Physostigmine as parasympathomimetic:

....

....

3) Classify antipyretic analgesics and give examples:

a..

....

b-..

....

c-..

....

4) Classify Sympatholytics and give examples:

a- ....

....

b-. ....

....

c- ....

....

5) Give reasons for the following:

a-The use of adrenaline with procaine:

....

....

b- The use of atropine before volatile anaesthetics:

....

....

c- The use of probencid with penicillins:

....

....




اسم الطالب ....

رقم الجلوس ....

كلية : ....

إمتحــان العــام الدراسى : .... **سنة** /

المادة : ....

الفرقة : .... **القسم :** ....

السـؤال	الدرجـة	المصحح
الأول . . .		
الثاني . . .		
الثالث . . .		
الرابـع . . .		
الخـامس . .		
السـادس . .		
السابع . . .		
الثـامن . .		
التــاسـع . .		
العـاشـر . .		
مجموع الدرجات		

مجمـوع الدرجـات

مجموع الدرجات (كتابة) : ....

ملحوظة : على الطالب أن يكتب إجابته على الوجهين وأن يجيب على الأسئلة المطلوبة فقط ولن يلتفت إلى الإجابات الزائدة عن المطلوب .

(مطبعة جامعة القاهرة)

(61)

Cairo University
Faculty of Veterinary Medicine
Department of Pharmacology

Date: 4-1-2003
Course: 303
Time: Two hours[1]

General Pharmacology Examination
For Undergraduate Students

I. Choose the correct answer and fill in the spaces with suitable words:

1. Some drugs can react with metallic ions in the cell forming inactive compounds and loses their effect on the cell.
a. By osmosis b. By replacement c. By physical action d. By chelation

2. Autonomic drugs are classified according to the autonomic receptors into:
a. Parasympathomimetics b.Cholinergic drugs c.Sympathomimetics d.Adrenergic drugs

3. The action of this amino acid at spinal interneuron is antagonized by strychnine or brucine lead to increase of spinal reflexes and tetanic contractions of skeletal muscles:
a. GABA b. Glycine c. Glutamic acid d. Aspartic acid

4. (.....................................Sialagogues) is commonly used to increase the appetite in debilitating animals. It was called bitters or stomachics and it may be aromatic such as lemon peel and non-aromatic such as:
a. Carbachol b. Orange peel c. Physostigmine d. Nux vomica

5.(..effect) is the main effect of digitalis in which the heart rate is slowed by vagal stimulation and slowing the rate of conduction, these improves coronary perfusion during the extended period of diastole.

6. (....................anoxia) which is due to weak circulation of blood and so less oxygen reaches to the tissues. This happens in case of shock, after haemorrhage or in cardiac failure

7. It acts by competitive antagonism with aldosterone hormone so it cause increase Na^+ ions excretion but cause K^- ions retention e.g.:
a. Amphenone B b. Furosemide c. Spironolactone d. Acetazolamide

8. (..............................) is effective drug in cases of expulsion of foetus in uterine inertia, retained placenta and uterine prolapse.

9. Displacement of a drug from its binding sites by a second drug is clinically important, for example, Warfarin toxicity are attributed to concurrently administration with:
a. Steroid anti-inflammatory b. Flunixin
c. Hypoglycemic d. Muscle relaxants

10. From the advantages of parenteral administration:
a. Not suitable for insoluble substance b. Local irritation may occur at the site of injection
c. Rapid onset of drug action d. Can be used when the animal is unconscious

II. Choose the correct answer and fill in the spaces with suitable words:

1. These drugs prevent the access of acetylcholine to the cholinergic receptors of internal organs and exocrine glands:
a. Parasympathomimetics
b. Parasympatholytics
c. Sympathomimetics
d. Sympatholytics

2. These drugs produce GABA-like effects by increase GABA binding to its receptors lead to GABA-activated chloride channel remain open (prolong the activity):
a. Ivermectin b. Valporate sodium c. Picrotoxin d. Barbiturate

3. (............................) is commonly used as preanasthetic medication as it reduces both the salivary and bronchial secretions.

4. Is a sodium+ channel blockers used to control arrhythmia of ventricular origin e.g.
a. Verapamil b. Nefedipine c. Disopyramide d. Bretylium

5. (..)They act by irritating the sensory nerves of gastric mucous membrane so stimulate reflexly the bronchial glands to secret more secretions such as:
a. Potassium iodide b. Tr. Benzoin c. Ipecacuanha d. Ammonium chloride

6. (................................... diuretics) act on distal tubules and collecting tubules inhibiting Na^+ reabsorption and K^- excretion and promote uric acid excretion e.g.
a. Furosemide b. Amilaride c. Bumetanide d. Ethacrynic acid

7. (..................................) play a role in ovulation, luteolysis, uterine motility and clinically used to synchronize ovulation.

8. The ideal analgesic drugs for treatment of equine colic are non-steroid anti-inflammatory which act peripherally such as:
a. Phenylbutazone b. Methadone c. fentanyl d. Xylazine

9. This case occurs when two drugs combine with one another to form an inactive compound.
a. Chemical antagonism
b. Physiological antagonism
c. Competitive antagonism
d. Noncompetitive antagonism

10. Nicotinic action is blocked on the skeletal muscle by:
a. Lobeline b. Suxamethonium c. Small dose of acetylcholine d. Gallamine

11. It is a powerful cerebral stimulants, has a direct stimulant to myocardium, producing hyperacidity and improves digestion:
a. Caffeine b. Theophylline c. Theobromine d. Amphetamine

12. (.....................................anti-acids) are insoluble alkaline salts that remain within the GIT and produced their anti-acid only in the stomach without releasing CO_2 such as:
a. Potassium citrates
b. Magnesium trisilicate
c. Magnesium carbonate
d. Sodium citrates

III. Choose the correct answer and fill in the spaces with suitable words:

1. (...), These group of drugs increase heart rate and contractile power in acute heart failure (arrest or shock) e.g.
a. Dobutamine b. Gitoxin c. Strophanthus d. Squell

2. Drugs which liquefy bronchial vicid secretions by dissolving them, so reduce their viscosity to be easily expelled by coughing are called (.......................................) such as:
a. Bromhexine b. Camphor c. Guaiacol d. Senega

3. (..) They act extra-renal on the myocardium acting as a cardiac stimulant and cause relaxation of smooth muscle of renal blood vessels leading to renal vasodilation and increase the glomerular filtrate with subsequent mild diuresis e.g.
a. Chlorothiazide b. Lasix c. Triameterene d. caffeine

4. It act as counter irritants and during its excretion cause irritation and increase blood flow lead to sex organs so sexual activation (aphrodisiac) e.g.
a. Yohimbine b. Alcohols c. Cantharidin d. Strychnine

5. The best drug used for regression of the follicular cyst in cows is:
a. $PGF_{2\alpha}$ b. HCG c. Oestradiol benzoate d. F.S.H.

6. These cases occurs when an animal requires increasing doses to produce the same effect
a. Cross-tolerance b. Selectivity c. Tolerance d. Specificity

7. It is unsuitable as therapeutic agent, but is sometimes used for treatment of peripheral vascular disease:
a. Adrenaline b. Atropine c. Noradrenaline d. Acetylcholine

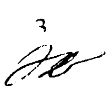
8. This case occurs if a drug lacking an effect of its own increases the effect of a second, active drug ($0 + 1 > 2$).
a. Synergism b. Potentiation c. Antagonism d. Additive drug effects

9. These are drugs considered a physiological mediator to acetylcholine, but are longer acting:
a. Muscarine b. Carbachol c. Mecholine d. Pilocarpine

10. These are drugs, which stimulate the depressed vital centers in medulla as respiratory and vasomotor centers and improve respiration and circulation:
a. Amphetamine b. Nikethamide c. Theophylline d. Leptazol

11. (..............................) Drugs in this group stimulate the dopaminergic receptors in the CTZ, which, in turn stimulates the vomiting center. The most commonly used emetic drug is:
a. Morphine b. Copper sulphate c. Zinc sulphate d. Apomorphine Hcl

12. It is the subject deals with absorption, distribution, biotransformation and excretion of drugs
a. Pharmacodynamics b. Therapeutics c. Pharmacognosy d. Pharmacokinetics



[6]

IV. Choose the correct answer and fill in the spaces with suitable words:

1. This drug has selective action on the smooth muscles of the GIT and urinary bladder; it is mainly used as purgative, diuretic and ruminal tonic:
a. Carbachol b. Methacholine c. Arecholine d. Pilocarpine

2. This drug inhibits the presynaptic and postsynaptic inhibition produced by GABA transmitter on neuron and also closes the chloride channels of neuron:
a. Picrotoxin b. Barbiturates c. Coramine d. Cardiazol

3. This is a pathway (for drug transport) of limited capacity across most barriers, e.g. the epithelial lining of the surface of the body such as the cornea, gut and bladder
a. Aqueous diffusion b.Simple diffusion c. Facilitated diffusion d. Active transport

4. It is a powerful diaphoretic used to remove oedema and used also for treatment of glaucoma and in breaking down adhesion between iris and eye lens by alternate use it with atropine:
a. Physostigmine b. Pilocarpine c. Arecholine d. Neostigmine

5. The main site of action of these drugs is spinal cord where they block the action of inhibitory transmitter Glycine at postsynaptic neuron:
a. Amphetamine b. Brucine c. Ephedrine d. Strychnine

6. (...) are drugs which decrease bacterial fermentation by killing or inhibiting rumen microflora, so it decrease the production of gas such as:
a. Turpentine oil b. Carbachol c. Methylsilicone d. Kerosene

7. From the importance of binding of drugs to plasma protein
a. Decrease absorption from the intestinal wall b. Increase diffusion of the drug into the cell
c. Delay the drug excretion d. Increase the toxicity of the drug.

8. It is mainly used in treatment of myasthenia gravis, glaucoma to reduce intraoccular pressure and used alternately with atropine to break down adhesions between the iris and the eye lens:
a. Pilocarpine b. Prostigmine c. Eserine d. Bethanechol

9. Small dose from this drug act as nerve sedative and large doses acts as sedative hypnotic and general non-volatile anaesthetic (i.v. injection) in horse and donkeys:
a. Potassium bromide b. Chlorpromazine c. Xylazine d. Chloral hydrate

10. (...) are agents, which require metabolism before irritations are produced. The main members of the group are the anthracene purgatives as:
a. Phenolphthalein b. Senna c. Castor oil d. Linseed oil

11. Acetylation reaction carried mainly in the liver but also can be carried in the spleen, lung and GIT for these drugs:
a. Progesterone b. Meperidine c. Sulphonamides d. Pentobarbital

V. Choose the correct answer and fill in the spaces with suitable words:

1. It decreases the secretion of all exocrine glands and used as preanasthetic drug before administration of volatile anaesthesia:
a. Adrenaline b. Gallamine c. Atropine d. Hyoscine

2. They are widely used in veterinary medicine as sedative, sedative-hypnotic and for induction of general anaesthesia for surgical operations. It act as depressant effect by increasing the binding of GABA to GABA-receptors on postsynaptic membrane:
a. Bromides b. Chloral hydrate c. Barbiturates d. Xylazine

3. (…………………………………………….) are compounds which precipitates protein of the intestinal mucosa to provide a protective barrier for the underlaying tissue such as:
a. Aluminum salts b. Calcium carbonate c. Charcoal d. Bismuth carbonate

4. Direct smooth muscle relaxants, elevate c-GMP which relax smooth muscles of blood vessels and used as hypotensive drugs such as:
a. Clonidine b. α-methyldopa c. Amyl nitrite d. Reserpine

5. Cats are deficient in special enzyme which metabolize drugs like paracetamol and the salicylates such as
a. Acyl transferase b. glucuronyl transferase c. Pseudocholinestrase d. Sulphotransferase

6. It has the same action of atropine but it produce less cerebral stimulation and more antispasmodic action to counteract gripping:
a. Hyoscyamine b. Scopolamine c. Hyoscine d. Eucatropine

7. They are widely used in horses and cattle as preanasthetic drug for rapid induction of anaesthesia, and transport, handling and control animals:
a. Meprobamate b. Xylazine c. Chloral hydrate d. Acepromazine

8. This rate is measured by the clearance of inulin or creatinine and not reabsorbed from the renal tubule.
a. Tubular reabsorption b.Tubular secretion c.Renal excretion d.Glomerular filtration

9. This drug is used to treat bronchial asthma, selectively, activates β_2-receptors and thereby relaxes bronchial smooth muscle with little accompanying undesirable cardiac stimulation:
a. Isoproterenol b. Epinephrine c. Norepinephrine d. Salbutamol

10. Injection of this drug s.c. in dog cause restlessness, panting, salivation, vomiting, defecation, decrease in body temperature and then deep narcoses:
a. Apomorphin b. Nalorphine c. Morphine d. Acetyl morphine

11. (………………………………….) are drugs which stimulate the liver cells to secrete more bile and are used to help digestion of fat in case of chronic liver diseases such as:
a. Magnesium sulphate b. Cincophen c. Cholecystokinin d. Sodium sulphate

VI. Choose the correct answer and fill in the spaces with suitable words:

1. Internal haemorrhage can be treated by (................................) for the formation of prothrombin and factor VII but (......................) is used in blood transfusion and treatment of thrombosis and blood sampling.

2. (....drugs) cause antitussive effect without depressing the CNS causing neither addiction nor narcosis, used for treatment of dry cough such as:
a. Codeine phosphate b. Dihydrocodeinone c. Pholcodeine d. Dextromethophan

3. It is a derivative of benzoic acid, which increase excretion of uric acid in the urine, and it also act as a tubular blocking agent for penicillin e.g.
a. Sulphinpyrazone b. Probencid c. Indacrinone d. Allopurinol

4. It used to stimulate addition of follicle growth, stimulate supperovulation, embryo transfere and stimulate the synthesis of androgen e.g.
a. L.H. b. F.S.H. c. Oestrogen d. Prostaglandins

5. (.............................) is the best drug used for treatment of myasthenia gravis in dogs.

6. When pKa of a drug equal the pH the rate of its ionization reach:
a. 15% b. 50% c. 75% d. 100%

7. It is a non catecholamine, rapidly absorbed from the GIT and powerful CNS stimulant, it increases mental and physical activities and decrease fatigue:
a. Ephedrine b. Mephenteramine c. Amphetamine d. Metaraminol

8. It has antipyretic and analgesic effect by inhibition of heat regulating center and decrease sensitization to pain receptors and not cause peptic ulcer:
a. Paracetamol b. Phenazone c. Sodium salicylates d. Ibuprofen

9. It is alkaloid, produces a competitive α_2 -adrenergic block, antidiuretic action, marked anaesthetic and aphrodisiac action:
a. Tolazoline b. Yohimbine c. Azapetine d. Regitine

10 These drugs inhibit cyclooxygenase and thus inhibit the synthesis of thromoxane, which is a powerful inducer of platelet aggregation e.g.
a. Acetyl salicylic acid b. Warfarin sodium c. Heparin d. Vitamin K

11. Drugs that release an antiseptic substance in acid urine are used for treatment of urinary tract infection such as in pylonepheritis, cystitis and urithritis e.g.
a. Formalin b. Sodium citrate c. Ammonium chloride d. Hexamine

12. It depletes tissue synthesis of Norepinephrine through inhibition of the decarboxylation of dopa and also decreases the concentration of dopamine and Norepinephrine in the CNS and peripheral tissues:
a. Reserpine b. Bretylium c. Guanethidine d. Aldomet

13. Its solution is not absorbed from mucous membrane and therefore suitable for infiltration and epidural anaesthesia and usually combined with adrenaline to prolong its duration of action
a. Amethocaine b. Cinchocaine c. Procaine d. Paintocain

[6]

VII. Mention only the mechanism of action of the following drugs:

No.	Drugs	Mechanism of action
1	Oximes as antidote for Organophosphorus toxicity	
2	Adrenaline as a bronchial dilator	
3	Pronethalol as Hypotensive drug	
4	Theophylline as A diuretic	
5	Metoclopramide as Anti-emetics	
6	Verapamil as Antiarrhythmic	
7	Dicoumarol as Anticoagulant	
8	Thiazides as Diuretics	
9	Papaverine during Asthmatic attack	
10	Isoxurpine as Uterine sedatives	
11	Tannic acid as intestinal astringents for treatment of diarrhoea	

5.5 =





كلية : ....

اسم الطالب :

رقم الجلوس :

امتحـــان دور : .... سنة /

المـــادة : ....

الفـــرقة : .... القسم : ....

مجمـوع الدرجــات

السـؤال	الدرجة	المصحح
الأول		
الثـــانى ...		
الثالث ...		
الرابـــع ...		
الخامس ...		
الســادس ...		
الســابع ...		
الثـــامن ...		
التاســـع ...		
العــاشر ...		
مجموع الدرجات		

مجموع الدرجات (كتابة) : ....

ملحــوظة : على الطالب ان يكتب اجابته على الوجهين وان يجيب على الأسئلة المطلوبة فقط ولن يلتفت الى الاجابات الزائدة عن المطلوب .

(مركز جامعة القاهرة للطباعة والنشر)

[7]

Cairo University
Faculty of Veterinary Medicine
Department of Pharmacology

Date: 4-1-2003
Course: 303
Time: Two hours(2)

General Pharmacology Examination For Undergraduate Students

I. Choose the correct answer and fill in the spaces with suitable words:

1. These drugs prevent the access of acetylcholine to the cholinergic receptors of internal organs and exocrine glands:
a. Parasympathomimetics b. Parasympatholytics
c. Sympathomimetics d. Sympatholytics

2. These drugs produce GABA-like effects by increase GABA binding to its receptors lead to GABA-activated chloride channel remain open (prolong the activity):
a. Ivermectin b. Valporate sodium c. Picrotoxin d. Barbiturate

3. (............................) is commonly used as preanasthetic medication as it reduces both the salivary and bronchial secretions.

4. Is a sodium+ channel blockers used to control arrhythmia of ventricular origin e.g.
a. Verapamil b. Nefedipine c. Disopyramide d. Bretylium

5. (..) They act by irritating the sensory nerves of gastric mucous membrane so stimulate reflexly the bronchial glands to secret more secretions such as:
a. Potassium iodide b. Tr. Benzoin c. Ipecacuanha d. Ammonium chloride

6. (... diuretics) act on distal tubules and collecting tubules inhibiting Na^+ reabsorption and K^- excretion and promote uric acid excretion e.g.
a. Furosemide b. Amilaride c. Bumetanide d. Ethacrynic acid

7. (..) play a role in ovulation, luteolysis, uterine motility and clinically used to synchronize ovulation.

8. The ideal analgesic drugs for treatment of equine colic are non-steroid anti-inflammatory which act peripherally such as:
a. Phenylbutazone b. Methadone c. fentanyl d. Xylazine

9. This case occurs when two drugs combine with one another to form an inactive compound.
a. Chemical antagonism b. Physiological antagonism
c. Competitive antagonism d. Noncompetitive antagonism

10. Nicotinic action is blocked on the skeletal muscle by:
a. Lobeline b. Suxamethonium c. Small dose of acetylcholine d. Gallamine

11. It is a powerful cerebral stimulants, has a direct stimulant to myocardium, producing hyperacidity and improves digestion:
a. Caffeine b. Theophylline c. Theobromine d. Amphetamine

12. (...anti-acids) are insoluble alkaline salts that remain within the GIT and produced their anti-acid only in the stomach without releasing CO_2 such as:
a. Potassium citrates b. Magnesium trisilicate c. Magnesium carbonate d. Sodium citrates

II. Choose the correct answer and fill in the spaces with suitable words:

1. Some drugs can react with metallic ions in the cell forming inactive compounds and loses their effect on the cell.
a. By osmosis b. By replacement c. By physical action d. By chelation

2. Autonomic drugs are classified according to the autonomic receptors into:
a. Parasympathomimetics b.Cholinergic drugs c.Sympathomimetics d.Adrenergic drugs

3. The action of this amino acid at spinal interneuron is antagonized by strychnine or brucine lead to increase of spinal reflexes and tetanic contractions of skeletal muscles:
a. GABA b. Glycine c. Glutamic acid d. Aspartic acid

4. (.................................Sialagogues) is commonly used to increase the appetite in debilitating animals. It was called bitters or stomachics and it may be aromatic such as lemon peel and non-aromatic such as:
a. Carbachol b. Orange peel c. Physostigmine d. Nux vomica

5.(...effect) is the main effect of digitalis in which the heart rate is slowed by vagal stimulation and slowing the rate of conduction, these improves coronary perfusion during the extended period of diastole.

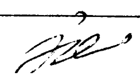
6. (.......................anoxia) which is due to weak circulation of blood and so less oxygen reaches to the tissues. This happens in case of shock, after haemorrhage or in cardiac failure

7. It acts by competitive antagonism with aldosterone hormone so it cause increase Na^+ ions excretion but cause K^- ions retention e.g.:
a. Amphenone B b. Furosemide c. Spironolactone d. Acetazolamide

8. (..............................) is effective drug in cases of expulsion of foetus in uterine inertia, retained placenta and uterine prolapse.

9. Displacement of a drug from its binding sites by a second drug is clinically important, for example, Warfarin toxicity are attributed to concurrently administration with:
a. Steroid anti-inflammatory b. Flunixin
c. Hypoglycemic d. Muscle relaxants

10. From the advantages of parenteral administration:
a. Not suitable for insoluble substance b. Local irritation may occur at the site of injection
c. Rapid onset of drug action d. Can be used when the animal is unconscious



7

III. Choose the correct answer and fill in the spaces with suitable words

1. (..), These group of drugs increase heart rate and contractile power in acute heart failure (arrest or shock) e.g.
a. Dobutamine   b. Gitoxin   c. Strophanthus   d. Squell

2. Drugs which liquefy bronchial vicid secretions by dissolving them, so reduce their viscosity to be easily expelled by coughing are called (......................................) such as:
a. Bromhexine   b. Camphor   c. Guaiacol   d. Senega

3. (..) They act extra-renal on the myocardium acting as a cardiac stimulant and cause relaxation of smooth muscle of renal blood vessels leading to renal vasodilation and increase the glomerular filtrate with subsequent mild diuresis e.g.
a. Chlorothiazide   b. Lasix   c. Triameterene   d. caffeine

4. It act as counter irritants and during its excretion cause irritation and increase blood flow lead to sex organs so sexual activation (aphrodisiac) e.g.
a. Yohimbine   b. Alcohols   c. Cantharidin   d. Strychnine

5. The best drug used for regression of the follicular cyst in cows is:
a. $PGF_{2\alpha}$ b. HCG   c. Oestradiol benzoate   d. F.S.H.

6. These cases occurs when an animal requires increasing doses to produce the same effect
a. Cross-tolerance   b. Selectivity   c. Tolerance   d. Specificity

7. It is unsuitable as therapeutic agent, but is sometimes used for treatment of peripheral vascular disease:
a. Adrenaline   b. Atropine   c. Noradrenaline   d. Acetylcholine

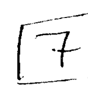
8. This case occurs if a drug lacking an effect of its own increases the effect of a second, active drug $(0 + 1 > 2)$.
a. Synergism   b. Potentiation   c. Antagonism   d. Additive drug effects

9. These are drugs considered a physiological mediator to acetylcholine, but are longer acting:
a. Muscarine   b. Carbachol   c. Mecholine   d. Pilocarpine

10. These are drugs, which stimulate the depressed vital centers in medulla as respiratory and vasomotor centers and improve respiration and circulation:
a. Amphetamine   b. Nikethamide   c. Theophylline   d. Leptazol

11. (............................) Drugs in this group stimulate the dopaminergic receptors in the CTZ, which, in turn stimulates the vomiting center. The most commonly used emetic drug is:
a. Morphine   b. Copper sulphate   c. Zinc sulphate   d. Apomorphine Hcl

12. It is the subject deals with absorption, distribution, biotransformation and excretion of drugs
a. Pharmacodynamics   b. Therapeutics   c. Pharmacognosy   d. Pharmacokinetics



IV. Choose the correct answer and fill in the spaces with suitable words:

1. This drug has selective action on the smooth muscles of the GIT and urinary bladder; it is mainly used as purgative, diuretic and ruminal tonic:
a. Carbachol b. Methacholine c. Arecholine d. Pilocarpine

2. This drug inhibits the presynaptic and postsynaptic inhibition produced by GABA transmitter on neuron and also closes the chloride channels of neuron:
a. Picrotoxin b. Barbiturates c. Coramine d. Cardiazol

3. This is a pathway (for drug transport) of limited capacity across most barriers, e.g. the epithelial lining of the surface of the body such as the cornea, gut and bladder
a. Aqueous diffusion b.Simple diffusion c. Facilitated diffusion d. Active transport

4. It is a powerful diaphoretic used to remove oedema and used also for treatment of glaucoma and in breaking down adhesion between iris and eye lens by alternate use it with atropine:
a. Physostigmine b. Pilocarpine c. Arecholine d. Neostigmine

5. The main site of action of these drugs is spinal cord where they block the action of inhibitory transmitter Glycine at postsynaptic neuron:
a. Amphetamine b. Brucine c. Ephedrine d. Strychnine

6. (……………………………………) are drugs which decrease bacterial fermentation by killing or inhibiting rumen microflora, so it decrease the production of gas such as:
a. Turpentine oil b. Carbachol c. Methylsilicone d. Kerosene

7. From the importance of binding of drugs to plasma protein
a. Decrease absorption from the intestinal wall b. Increase diffusion of the drug into the cell
c. Delay the drug excretion d. Increase the toxicity of the drug.

8. It is mainly used in treatment of myasthenia gravis, glaucoma to reduce intraoccular pressure and used alternately with atropine to break down adhesions between the iris and the eye lens:
a. Pilocarpine b. Prostigmine c. Eserine d. Bethanechol

9. Small dose from this drug act as nerve sedative and large doses acts as sedative hypnotic and general non-volatile anaesthetic (i.v. injection) in horse and donkeys:
a. Potassium bromide b. Chlorpromazine c. Xylazine d. Chloral hydrate

10. (…………………………………………………) are agents, which require metabolism before irritations are produced. The main members of the group are the anthracene purgatives as:
a. Phenolphthalein b. Senna c. Castor oil d. Linseed oil

11. Acetylation reaction carried mainly in the liver but also can be carried in the spleen, lung and GIT for these drugs:
a. Progesterone b. Meperidine c. Sulphonamides d. Pentobarbital

7

V. Choose the correct answer and fill in the spaces with suitable words:

1. It decreases the secretion of all exocrine glands and used as preanasthetic drug before administration of volatile anaesthesia:
a. Adrenaline b. Gallamine c. Atropine d. Hyoscine

2. They are widely used in veterinary medicine as sedative, sedative-hypnotic and for induction of general anaesthesia for surgical operations. It act as depressant effect by increasing the binding of GABA to GABA-receptors on postsynaptic membrane:
a. Bromides b. Chloral hydrate c. Barbiturates d. Xylazine

3. (………………………………………………………) are compounds which precipitates protein of the intestinal mucosa to provide a protective barrier for the underlaying tissue such as:
a. Aluminum salts b. Calcium carbonate c. Charcoal d. Bismuth carbonate

4. Direct smooth muscle relaxants, elevate c-GMP which relax smooth muscles of blood vessels and used as hypotensive drugs such as:
a. Clonidine b. α-methyldopa c. Amyl nitrite d. Reserpine

5. Cats are deficient in special enzyme which metabolize drugs like paracetamol and the salicylates such as
a. Acyl transferase b. glucuronyl transferase c. Pseudocholinestrase d. Sulphotransferase

6. It has the same action of atropine but it produce less cerebral stimulation and more antispasmodic action to counteract gripping:
a. Hyoscyamine b. Scopolamine c. Hyoscine d. Eucatropine

7. They are widely used in horses and cattle as preanasthetic drug for rapid induction of anaesthesia, and transport, handling and control animals:
a. Meprobamate b. Xylazine c. Chloral hydrate d. Acepromazine

8. This rate is measured by the clearance of inulin or creatinine and not reabsorbed from the renal tubule.
a. Tubular reabsorption b. Tubular secretion c. Renal excretion d. Glomerular filtration

9. This drug is used to treat bronchial asthma, selectively, activates β_2-receptors and thereby relaxes bronchial smooth muscle with little accompanying undesirable cardiac stimulation:
a. Isoproterenol b. Epinephrine c. Norepinephrine d. Salbutamol

10. Injection of this drug s.c. in dog cause restlessness, panting, salivation, vomiting, defecation, decrease in body temperature and then deep narcoses:
a. Apomorphin b. Nalorphine c. Morphine d. Acetyl morphine

11. (……………………………………………) are drugs which stimulate the liver cells to secrete more bile and are used to help digestion of fat in case of chronic liver diseases such as:
a. Magnesium sulphate b. Cincophen c. Cholecystokinin d. Sodium sulphate

VI. Choose the correct answer and fill in the spaces with suitable words:

1. Internal haemorrhage can be treated by (.................................) for the formation of prothrombin and factor VII but (.......................) is used in blood transfusion and treatment of thrombosis and blood sampling.

2. (...drugs) cause antitussive effect without depressing the CNS causing neither addiction nor narcosis, used for treatment of dry cough such as:
a. Codeine phosphate b. Dihydrocodeinone c. Pholcodeine d. Dextromethophan

3. It is a derivative of benzoic acid, which increase excretion of uric acid in the urine, and it also act as a tubular blocking agent for penicillin e.g.
a. Sulphinpyrazone b. Probencid c. Indacrinone d. Allopurinol

4. It used to stimulate addition of follicle growth, stimulate supperovulation, embryo transfere and stimulate the synthesis of androgen e.g.
a. L.H. b. F.S.H. c. Oestrogen d. Prostaglandins

5. (..............................) is the best drug used for treatment of myasthenia gravis in dogs.

6. When pKa of a drug equal the pH the rate of its ionization reach:
a. 15% b. 50% c. 75% d. 100%

7. It is a non catecholamine, rapidly absorbed from the GIT and powerful CNS stimulant, it increases mental and physical activities and decrease fatigue:
a. Ephedrine b. Mephenteramine c. Amphetamine d. Metaraminol

8. It has antipyretic and analgesic effect by inhibition of heat regulating center and decrease sensitization to pain receptors and not cause peptic ulcer:
a. Paracetamol b. Phenazone c. Sodium salicylates d. Ibuprofen

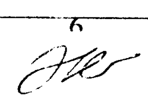
9. It is alkaloid, produces a competitive α_2 -adrenergic block, antidiuretic action, marked anaesthetic and aphrodisiac action:
a. Tolazoline b. Yohimbine c. Azapetine d. Regitine

10 These drugs inhibit cyclooxygenase and thus inhibit the synthesis of thromoxane, which is a powerful inducer of platelet aggregation e.g.
a. Acetyl salicylic acid b. Warfarin sodium c. Heparin d. Vitamin K

11. Drugs that release an antiseptic substance in acid urine are used for treatment of urinary tract infection such as in pylonepheritis, cystitis and urithritis e.g.
a. Formalin b. Sodium citrate c. Ammonium chloride d. Hexamine

12. It depletes tissue synthesis of Norepinephrine through inhibition of the decarboxylation of dopa and also decreases the concentration of dopamine and Norepinephrine in the CNS and peripheral tissues:
a. Reserpine b. Bretylium c. Guanethidine d. Aldomet

13. Its solution is not absorbed from mucous membrane and therefore suitable for infiltration and epidural anaesthesia and usually combined with adrenaline to prolong its duration of action
a. Amethocaine b. Cinchocaine c. Procaine d. Paintocain





VII. Mention only the mechanism of action of the following drugs:

No.	Drugs	Mechanism of action
1	Oximes as antidote for Organophosphorus toxicity	
2	Adrenaline as a bronchial dilator	
3	Pronethalol as Hypotensive drug	
4	Theophylline as A diuretic	
5	Metoclopramide as Anti-emetics	
6	Verapamil as Antiarrhythmic	
7	Dicoumarol as Anticoagulant	
8	Thiazides as Diuretics	
9	Papaverine during Asthmatic attack	
10	Isoxurpine as Uterine sedatives	
11	Tannic acid as intestinal astringents for treatment of diarrhoea	

5.5 =



اسم الطالب :
رقم الجلوس :

كليـة : ....

امتحان دور : .... سنة /

المـادة : ....

الفرقة : .... القسم : ....

مجمـوع الدرجـات

السـؤال	الدرجـة	المصحح
الأول		
الثانى		
الثالث		
الرابع		
الخامس		
السادس		
السابع		
الثامن		
التاسع		
العاشر		
مجموع الدرجات		

مجموع الدرجات (كتابة) : ....

ملحـوظة : على الطالب ان يكتب اجابته على الوجهين وان يجيب على الأسئلة المطلـوبة فقط ولن يلتفت الى الاجابات الزائدة عن المطلوب .

(مركز جامعة القاهرة للطباعة والنشر)

[2]

Cairo University
Faculty of Veterinary Medicine
Department of Pharmacology

Date: 4-1-2003
Course: 303
Time: Two hours[3]

General Pharmacology Examination For Undergraduate Students

I. Choose the correct answer and fill in the spaces with suitable words:

1. This drug has selective action on the smooth muscles of the GIT and urinary bladder; it is mainly used as purgative, diuretic and ruminal tonic:
a. Carbachol b. Methacholine c. Arecholine d. Pilocarpine

2. This drug inhibits the presynaptic and postsynaptic inhibition produced by GABA transmitter on neuron and also closes the chloride channels of neuron:
a. Picrotoxin b. Barbiturates c. Coramine d. Cardiazol

3. This is a pathway (for drug transport) of limited capacity across most barriers, e.g. the epithelial lining of the surface of the body such as the cornea, gut and bladder
a. Aqueous diffusion b.Simple diffusion c. Facilitated diffusion d. Active transport

4. It is a powerful diaphoretic used to remove oedema and used also for treatment of glaucoma and in breaking down adhesion between iris and eye lens by alternate use it with atropine:
a. Physostigmine b. Pilocarpine c. Arecholine d. Neostigmine

5. The main site of action of these drugs is spinal cord where they block the action of inhibitory transmitter Glycine at postsynaptic neuron:
a. Amphetamine b. Brucine c. Ephedrine d. Strychnine

6. (.......................................) are drugs which decrease bacterial fermentation by killing or inhibiting rumen microflora, so it decrease the production of gas such as:
a. Turpentine oil b. Carbachol c. Methylsilicone d. Kerosene

7. From the importance of binding of drugs to plasma protein
a. Decrease absorption from the intestinal wall b. Increase diffusion of the drug into the cell
c. Delay the drug excretion d. Increase the toxicity of the drug.

8. It is mainly used in treatment of myasthenia gravis, glaucoma to reduce intraoccular pressure and used alternately with atropine to break down adhesions between the iris and the eye lens:
a. Pilocarpine b. Prostigmine c. Escrine d. Bethanechol

9. Small dose from this drug act as nerve sedative and large doses acts as sedative hypnotic and general non-volatile anaesthetic (i.v. injection) in horse and donkeys:
a. Potassium bromide b. Chlorpromazine c. Xylazine d. Chloral hydrate

10. (..) are agents, which require metabolism before irritations are produced. The main members of the group are the anthracene purgatives as:
a. Phenolphthalein b. Senna c. Castor oil d. Linseed oil

11. Acetylation reaction carried mainly in the liver but also can be carried in the spleen, lung and GIT for these drugs:
a. Progesterone b. Meperidine c. Sulphonamides d. Pentobarbital

[8]

II. Choose the correct answer and fill in the spaces with suitable words:

1. Some drugs can react with metallic ions in the cell forming inactive compounds and loses their effect on the cell.
a. By osmosis b. By replacement c. By physical action d. By chelation

2. Autonomic drugs are classified according to the autonomic receptors into:
a. Parasympathomimetics b.Cholinergic drugs c.Sympathomimetics d.Adrenergic drugs

3. The action of this amino acid at spinal interneuron is antagonized by strychnine or brucine lead to increase of spinal reflexes and tetanic contractions of skeletal muscles:
a. GABA b. Glycine c. Glutamic acid d. Aspartic acid

4. (....................................Sialagogues) is commonly used to increase the appetite in debilitating animals. It was called bitters or stomachics and it may be aromatic such as lemon peel and non-aromatic such as:
a. Carbachol b. Orange peel c. Physostigmine d. Nux vomica

5.(..effect) is the main effect of digitalis in which the heart rate is slowed by vagal stimulation and slowing the rate of conduction, these improves coronary perfusion during the extended period of diastole.

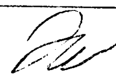
6. (......................anoxia) which is due to weak circulation of blood and so less oxygen reaches to the tissues. This happens in case of shock, after haemorrhage or in cardiac failure

7. It acts by competitive antagonism with aldosterone hormone so it cause increase Na^+ ions excretion but cause K^- ions retention e.g.:
a. Amphenone B b. Furosemide c. Spironolactone d. Acetazolamide

8. (............................) is effective drug in cases of expulsion of foetus in uterine inertia, retained placenta and uterine prolapse.

9. Displacement of a drug from its binding sites by a second drug is clinically important, for example, Warfarin toxicity are attributed to concurrently administration with:
a. Steroid anti-inflammatory b. Flunixin
c. Hypoglycemic d. Muscle relaxants

10. From the advantages of parenteral administration:
a. Not suitable for insoluble substance b. Local irritation may occur at the site of injection
c. Rapid onset of drug action d. Can be used when the animal is unconscious



[۲۱]

III. Choose the correct answer and fill in the spaces with suitable words:

1. These drugs prevent the access of acetylcholine to the cholinergic receptors of internal organs and exocrine glands:
a. Parasympathomimetics b. Parasympatholytics
c. Sympathomimetics d. Sympatholytics

2. These drugs produce GABA-like effects by increase GABA binding to its receptors lead to GABA-activated chloride channel remain open (prolong the activity):
a. Ivermectin b. Valporate sodium c. Picrotoxin d. Barbiturate

3. (....................................) is commonly used as preanasthetic medication as it reduces both the salivary and bronchial secretions.

4. Is a sodium+ channel blockers used to control arrhythmia of ventricular origin e.g.
a. Verapamil b. Nefedipine c. Disopyramide d. Bretylium

5. (..) They act by irritating the sensory nerves of gastric mucous membrane so stimulate reflexly the bronchial glands to secret more secretions such as:
a. Potassium iodide b. Tr. Benzoin c. Ipecacuanha d. Ammonium chloride

6. (... diuretics) act on distal tubules and collecting tubules inhibiting Na^+ reabsorption and K^- excretion and promote uric acid excretion e.g.
a. Furosemide b. Amilaride c. Bumetanide d. Ethacrynic acid

7. (..) play a role in ovulation, luteolysis, uterine motility and clinically used to synchronize ovulation.

8. The ideal analgesic drugs for treatment of equine colic are non-steroid anti-inflammatory which act peripherally such as:
a. Phenylbutazone b. Methadone c. fentanyl d. Xylazine

9. This case occurs when two drugs combine with one another to form an inactive compound.
a. Chemical antagonism b. Physiological antagonism
c. Competitive antagonism d. Noncompetitive antagonism

10. Nicotinic action is blocked on the skeletal muscle by:
a. Lobeline b. Suxamethonium c. Small dose of acetylcholine d. Gallamine

11. It is a powerful cerebral stimulants, has a direct stimulant to myocardium, producing hyperacidity and improves digestion:
a. Caffeine b. Theophylline c. Theobromine d. Amphetamine

12. (..anti-acids) are insoluble alkaline salts that remain within the GIT and produced their anti-acid only in the stomach without releasing CO_2 such as:
a. Potassium citrates b. Magnesium trisilicate
c. Magnesium carbonate d. Sodium citrates

IV. Choose the correct answer and fill in the spaces with suitable words:

1. (……………………………………………………), These group of drugs increase heart rate and contractile power in acute heart failure (arrest or shock) e.g.
a. Dobutamine b. Gitoxin c. Strophanthus d. Squell

2. Drugs which liquefy bronchial vicid secretions by dissolving them, so reduce their viscosity to be easily expelled by coughing are called (……………………………………………) such as:
a. Bromhexine b. Camphor c. Guaiacol d. Senega

3. (……………………………………………………) They act extra-renal on the myocardium acting as a cardiac stimulant and cause relaxation of smooth muscle of renal blood vessels leading to renal vasodilation and increase the glomerular filtrate with subsequent mild diuresis e.g.
a. Chlorothiazide b. Lasix c. Triameterene d. caffeine

4. It act as counter irritants and during its excretion cause irritation and increase blood flow lead to sex organs so sexual activation (aphrodisiac) e.g.
a. Yohimbine b. Alcohols c. Cantharidin d. Strychnine

5. The best drug used for regression of the follicular cyst in cows is:
a. $PGF_{2\alpha}$ b. HCG c. Oestradiol benzoate d. F.S.H.

6. These cases occurs when an animal requires increasing doses to produce the same effect
a. Cross-tolerance b. Selectivity c. Tolerance d. Specificity

7. It is unsuitable as therapeutic agent, but is sometimes used for treatment of peripheral vascular disease:
a. Adrenaline b. Atropine c. Noradrenaline d. Acetylcholine

8. This case occurs if a drug lacking an effect of its own increases the effect of a second, active drug $(0 + 1 > 2)$.
a. Synergism b. Potentiation c. Antagonism d. Additive drug effects

9. These are drugs considered a physiological mediator to acetylcholine, but are longer acting:
a. Muscarine b. Carbachol c. Mecholine d. Pilocarpine

10. These are drugs, which stimulate the depressed vital centers in medulla as respiratory and vasomotor centers and improve respiration and circulation:
a. Amphetamine b. Nikethamide c. Theophylline d. Leptazol

11. (……………………………) Drugs in this group stimulate the dopaminergic receptors in the CTZ, which, in turn stimulates the vomiting center. The most commonly used emetic drug is:
a. Morphine b. Copper sulphate c. Zinc sulphate d. Apomorphine Hcl

12. It is the subject deals with absorption, distribution, biotransformation and excretion of drugs
a. Pharmacodynamics b. Therapeutics c. Pharmacognosy d. Pharmacokinetics

V. Choose the correct answer and fill in the spaces with suitable words:

1. It decreases the secretion of all exocrine glands and used as preanasthetic drug before administration of volatile anaesthesia:
a. Adrenaline b. Gallamine c. Atropine d. Hyoscine

2. They are widely used in veterinary medicine as sedative, sedative-hypnotic and for induction of general anaesthesia for surgical operations. It act as depressant effect by increasing the binding of GABA to GABA-receptors on postsynaptic membrane:
a. Bromides b. Chloral hydrate c. Barbiturates d. Xylazine

3. (...) are compounds which precipitates protein of the intestinal mucosa to provide a protective barrier for the underlaying tissue such as:
a. Aluminum salts b. Calcium carbonate c. Charcoal d. Bismuth carbonate

4. Direct smooth muscle relaxants, elevate c-GMP which relax smooth muscles of blood vessels and used as hypotensive drugs such as:
a. Clonidine b. α-methyldopa c. Amyl nitrite d. Reserpine

5. Cats are deficient in special enzyme which metabolize drugs like paracetamol and the salicylates such as
a. Acyl transferase b. glucuronyl transferase c. Pseudocholinestrase d. Sulphotransferase

6. It has the same action of atropine but it produce less cerebral stimulation and more antispasmodic action to counteract gripping:
a. Hyoscyamine b. Scopolamine c. Hyoscine d. Eucatropine

7. They are widely used in horses and cattle as preanasthetic drug for rapid induction of anaesthesia, and transport, handling and control animals:
a. Meprobamate b. Xylazine c. Chloral hydrate d. Acepromazine

8. This rate is measured by the clearance of inulin or creatinine and not reabsorbed from the renal tubule.
a. Tubular reabsorption b.Tubular secretion c.Renal excretion d.Glomerular filtration

9. This drug is used to treat bronchial asthma, selectively, activates β_2-receptors and thereby relaxes bronchial smooth muscle with little accompanying undesirable cardiac stimulation:
a. Isoproterenol b. Epinephrine c. Norepinephrine d. Salbutamol

10. Injection of this drug s.c. in dog cause restlessness, panting, salivation, vomiting, defecation, decrease in body temperature and then deep narcoses:
a. Apomorphin b. Nalorphine c. Morphine d. Acetyl morphine

11. (..) are drugs which stimulate the liver cells to secrete more bile and are used to help digestion of fat in case of chronic liver diseases such as:
a. Magnesium sulphate b. Cincophen c. Cholecystokinin d. Sodium sulphate

VI. Choose the correct answer and fill in the spaces with suitable words:

1. Internal haemorrhage can be treated by (.................................) for the formation of prothrombin and factor VII but (.......................) is used in blood transfusion and treatment of thrombosis and blood sampling.

2. (....drugs) cause antitussive effect without depressing the CNS causing neither addiction nor narcosis, used for treatment of dry cough such as:
a. Codeine phosphate b. Dihydrocodeinone c. Pholcodeine d. Dextromethophan

3. It is a derivative of benzoic acid, which increase excretion of uric acid in the urine, and it also act as a tubular blocking agent for penicillin e.g.
a. Sulphinpyrazone b. Probencid c. Indacrinone d. Allopurinol

4. It used to stimulate addition of follicle growth, stimulate supperovulation, embryo transfere and stimulate the synthesis of androgen e.g.
a. L.H. b. F.S.H. c. Oestrogen d. Prostaglandins

5. (...............................) is the best drug used for treatment of myasthenia gravis in dogs.

6. When pKa of a drug equal the pH the rate of its ionization reach:
a. 15% b. 50% c. 75% d. 100%

7. It is a non catecholamine, rapidly absorbed from the GIT and powerful CNS stimulant, it increases mental and physical activities and decrease fatigue:
a. Ephedrine b. Mephenteramine c. Amphetamine d. Metaraminol

8. It has antipyretic and analgesic effect by inhibition of heat regulating center and decrease sensitization to pain receptors and not cause peptic ulcer:
a. Paracetamol b. Phenazone c. Sodium salicylates d. Ibuprofen

9. It is alkaloid, produces a competitive α_2-adrenergic block, antidiuretic action, marked anaesthetic and aphrodisiac action:
a. Tolazoline b. Yohimbine c. Azapetine d. Regitine

10 These drugs inhibit cyclooxygenase and thus inhibit the synthesis of thromoxane, which is a powerful inducer of platelet aggregation e.g.
a. Acetyl salicylic acid b. Warfarin sodium c. Heparin d. Vitamin K

11. Drugs that release an antiseptic substance in acid urine are used for treatment of urinary tract infection such as in pylonepheritis, cystitis and urithritis e.g.
a. Formalin b. Sodium citrate c. Ammonium chloride d. Hexamine

12. It depletes tissue synthesis of Norepinephrine through inhibition of the decarboxylation of dopa and also decreases the concentration of dopamine and Norepinephrine in the CNS and peripheral tissues:
a. Reserpine b. Bretylium c. Guanethidine d. Aldomet

13. Its solution is not absorbed from mucous membrane and therefore suitable for infiltration and epidural anaesthesia and usually combined with adrenaline to prolong its duration of action
a. Amethocaine b. Cinchocaine c. Procaine d. Paintocain

[8]

VII. Mention only the mechanism of action of the following drugs:

No.	Drugs	Mechanism of action
1	Oximes as antidote for Organophosphorus toxicity	
2	Adrenaline as a bronchial dilator	
3	Pronethalol as Hypotensive drug	
4	Theophylline as A diuretic	
5	Metoclopramide as Anti-emetics	
6	Verapamil as Antiarrhythmic	
7	Dicoumarol as Anticoagulant	
8	Thiazides as Diuretics	
9	Papaverine during Asthmatic attack	
10	Isoxurpine as Uterine sedatives	
11	Tannic acid as intestinal astringents for treatment of diarrhoea	

5.5 =



كليـــة : ....

اسم الطالب :

رقم الجلوس :

امتحان دور : .... سنة /

المــادة : ....

الفرقة : .... القسم : ....

مجمـــوع الدرجــات

الســـؤال	الدرجـــة	المصحح
الأول		
الثانى		
الثالث		
الرابع		
الخامس		
السادس		
السابع		
الثامن		
التاسع		
العاشر		
مجموع الدرجات		

مجموع الدرجات (كتابة) : ....

ملحــوظة : على الطالب ان يكتب اجابته على الوجهين وان يجيب على الأسئلة المطلــوبة فقط ولن يلتفت الى الاجابات الزائدة عن المطلوب .

(مركز جامعة القاهرة للطباعة والنشر)

(2)

Cairo University
Faculty of Veterinary Medicine
Department of Pharmacology

Date: 4-1-2003
Course: 303
Time: Two hours[4]

General Pharmacology Examination For Undergraduate Students

I. Choose the correct answer and fill in the spaces with suitable words:

1. (..), These group of drugs increase heart rate and contractile power in acute heart failure (arrest or shock) e.g.
a. Dobutamine b. Gitoxin c. Strophanthus d. Squell

2. Drugs which liquefy bronchial vicid secretions by dissolving them, so reduce their viscosity to be easily expelled by coughing are called (..) such as:
a. Bromhexine b. Camphor c. Guaiacol d. Senega

3. (..) They act extra-renal on the myocardium acting as a cardiac stimulant and cause relaxation of smooth muscle of renal blood vessels leading to renal vasodilation and increase the glomerular filtrate with subsequent mild diuresis e.g.
a. Chlorothiazide b. Lasix c. Triameterene d. caffeine

4. It act as counter irritants and during its excretion cause irritation and increase blood flow lead to sex organs so sexual activation (aphrodisiac) e.g.
a. Yohimbine b. Alcohols c. Cantharidin d. Strychnine

5. The best drug used for regression of the follicular cyst in cows is:
a. $PGF_{2\alpha}$ b. HCG c. Oestradiol benzoate d. F.S.H.

6. These cases occurs when an animal requires increasing doses to produce the same effect
a. Cross-tolerance b. Selectivity c. Tolerance d. Specificity

7. It is unsuitable as therapeutic agent, but is sometimes used for treatment of peripheral vascular disease:
a. Adrenaline b. Atropine c. Noradrenaline d. Acetylcholine

8. This case occurs if a drug lacking an effect of its own increases the effect of a second, active drug (0 + 1 > 2)
a. Synergism b. Potentiation c. Antagonism d. Additive drug effects

9. These are drugs considered a physiological mediator to acetylcholine, but are longer acting:
a. Muscarine b. Carbachol c. Mecholine d. Pilocarpine

10. These are drugs, which stimulate the depressed vital centers in medulla as respiratory and vasomotor centers and improve respiration and circulation:
a. Amphetamine b. Nikethamide c. Theophylline d. Leptazol

11. (.......................................) Drugs in this group stimulate the dopaminergic receptors in the CTZ, which, in turn stimulates the vomiting center. The most commonly used emetic drug is:
a. Morphine b. Copper sulphate c. Zinc sulphate d. Apomorphine Hcl

12. It is the subject deals with absorption, distribution, biotransformation and excretion of drugs
a. Pharmacodynamics b. Therapeutics c. Pharmacognosy d. Pharmacokinetics

II. Choose the correct answer and fill in the spaces with suitable words:

1. Some drugs can react with metallic ions in the cell forming inactive compounds and loses their effect on the cell.
a. By osmosis b. By replacement c. By physical action d. By chelation

2. Autonomic drugs are classified according to the autonomic receptors into:
a. Parasympathomimetics b.Cholinergic drugs c.Sympathomimetics d.Adrenergic drugs

3. The action of this amino acid at spinal interneuron is antagonized by strychnine or brucine lead to increase of spinal reflexes and tetanic contractions of skeletal muscles:
a. GABA b. Glycine c. Glutamic acid d. Aspartic acid

4. (.....................................Sialagogues) is commonly used to increase the appetite in debilitating animals. It was called bitters or stomachics and it may be aromatic such as lemon peel and non-aromatic such as:
a. Carbachol b. Orange peel c. Physostigmine d. Nux vomica

5.(...effect) is the main effect of digitalis in which the heart rate is slowed by vagal stimulation and slowing the rate of conduction, these improves coronary perfusion during the extended period of diastole.

6. (...............................anoxia) which is due to weak circulation of blood and so less oxygen reaches to the tissues. This happens in case of shock, after haemorrhage or in cardiac failure

7. It acts by competitive antagonism with aldosterone hormone so it cause increase Na^+ ions excretion but cause K^+ ions retention e.g.:
a. Amphenone B b. Furosemide c. Spironolactone d. Acetazolamide

8. (..) is effective drug in cases of expulsion of foetus in uterine inertia, retained placenta and uterine prolapse.

9. Displacement of a drug from its binding sites by a second drug is clinically important, for example, Warfarin toxicity are attributed to concurrently administration with:
a. Steroid anti-inflammatory b. Flunixin
c. Hypoglycemic d. Muscle relaxants

10. From the advantages of parenteral administration:
a. Not suitable for insoluble substance b. Local irritation may occur at the site of injection
c. Rapid onset of drug action d. Can be used when the animal is unconscious

III. Choose the correct answer and fill in the spaces with suitable words:

1. These drugs prevent the access of acetylcholine to the cholinergic receptors of internal organs and exocrine glands:
a. Parasympathomimetics b. Parasympatholytics
c. Sympathomimetics d. Sympatholytics

2. These drugs produce GABA-like effects by increase GABA binding to its receptors lead to GABA-activated chloride channel remain open (prolong the activity):
a. Ivermectin b. Valporate sodium c. Picrotoxin d. Barbiturate

3. (…………………………………………) is commonly used as preanasthetic medication as it reduces both the salivary and bronchial secretions.

4. Is a sodium+ channel blockers used to control arrhythmia of ventricular origin e.g.
a. Verapamil b. Nefedipine c. Disopyramide d. Bretylium

5. (…………………………………………) They act by irritating the sensory nerves of gastric mucous membrane so stimulate reflexly the bronchial glands to secret more secretions such as:
a. Potassium iodide b. Tr. Benzoin c. Ipecacuanha d. Ammonium chloride

6. (………………………………………………… diuretics) act on distal tubules and collecting tubules inhibiting Na^+ reabsorption and K^- excretion and promote uric acid excretion e.g.
a. Furosemide b. Amilaride c. Bumetanide d. Ethacrynic acid

7. (…………………………………………) play a role in ovulation, luteolysis, uterine motility and clinically used to synchronize ovulation.

8. The ideal analgesic drugs for treatment of equine colic are non-steroid anti-inflammatory which act peripherally such as:
a. Phenylbutazone b. Methadone c. fentanyl d. Xylazine

9. This case occurs when two drugs combine with one another to form an inactive compound.
a. Chemical antagonism b. Physiological antagonism
c. Competitive antagonism d. Noncompetitive antagonism

10. Nicotinic action is blocked on the skeletal muscle by:
a. Lobeline b. Suxamethonium c. Small dose of acetylcholine d. Gallamine

11. It is a powerful cerebral stimulants, has a direct stimulant to myocardium, producing hyperacidity and improves digestion:
a. Caffeine b. Theophylline c. Theobromine d. Amphetamine

12. (……………………………………………anti-acids) are insoluble alkaline salts that remain within the GIT and produced their anti-acid only in the stomach without releasing CO_2 such as:
a. Potassium citrates b. Magnesium trisilicate
c. Magnesium carbonate d. Sodium citrates

IV. Choose the correct answer and fill in the spaces with suitable words:

1. This drug has selective action on the smooth muscles of the GIT and urinary bladder; it is mainly used as purgative, diuretic and ruminal tonic:
a. Carbachol b. Methacholine c. Arecholine d. Pilocarpine

2. This drug inhibits the presynaptic and postsynaptic inhibition produced by GABA transmitter on neuron and also closes the chloride channels of neuron:
a. Picrotoxin b. Barbiturates c. Coramine d. Cardiazol

3. This is a pathway (for drug transport) of limited capacity across most barriers, e.g. the epithelial lining of the surface of the body such as the cornea, gut and bladder
a. Aqueous diffusion b.Simple diffusion c. Facilitated diffusion d. Active transport

4. It is a powerful diaphoretic used to remove oedema and used also for treatment of glaucoma and in breaking down adhesion between iris and eye lens by alternate use it with atropine:
a. Physostigmine b. Pilocarpine c. Arecholine d. Neostigmine

5. The main site of action of these drugs is spinal cord where they block the action of inhibitory transmitter Glycine at postsynaptic neuron:
a. Amphetamine b. Brucine c. Ephedrine d. Strychnine

6. (...) are drugs which decrease bacterial fermentation by killing or inhibiting rumen microflora, so it decrease the production of gas such as:
a. Turpentine oil b. Carbachol c. Methylsilicone d. Kerosene

7. From the importance of binding of drugs to plasma protein
a. Decrease absorption from the intestinal wall b. Increase diffusion of the drug into the cell
c. Delay the drug excretion d. Increase the toxicity of the drug.

8. It is mainly used in treatment of myasthenia gravis, glaucoma to reduce intraoccular pressure and used alternately with atropine to break down adhesions between the iris and the eye lens:
a. Pilocarpine b. Prostigmine c. Eserine d. Bethanechol

9. Small dose from this drug act as nerve sedative and large doses acts as sedative hypnotic and general non-volatile anaesthetic (i.v. injection) in horse and donkeys:
a. Potassium bromide b. Chlorpromazine c. Xylazine d. Chloral hydrate

10. (...) are agents, which require metabolism before irritations are produced. The main members of the group are the anthracene purgatives as:
a. Phenolphthalein b. Senna c. Castor oil d. Linseed oil

11. Acetylation reaction carried mainly in the liver but also can be carried in the spleen, lung and GIT for these drugs:
a. Progesterone b. Meperidine c. Sulphonamides d. Pentobarbital

V. Choose the correct answer and fill in the spaces with suitable words:

1. It decreases the secretion of all exocrine glands and used as preanasthetic drug before administration of volatile anaesthesia:
a. Adrenaline b. Gallamine c. Atropine d. Hyoscine

2. They are widely used in veterinary medicine as sedative, sedative-hypnotic and for induction of general anaesthesia for surgical operations. It act as depressant effect by increasing the binding of GABA to GABA-receptors on postsynaptic membrane:
a. Bromides b. Chloral hydrate c. Barbiturates d. Xylazine

3. (..) are compounds which precipitates protein of the intestinal mucosa to provide a protective barrier for the underlaying tissue such as:
a. Aluminum salts b. Calcium carbonate c. Charcoal d. Bismuth carbonate

4. Direct smooth muscle relaxants, elevate c-GMP which relax smooth muscles of blood vessels and used as hypotensive drugs such as:
a. Clonidine b. α-methyldopa c. Amyl nitrite d. Reserpine

5. Cats are deficient in special enzyme which metabolize drugs like paracetamol and the salicylates such as
a. Acyl transferase b. glucuronyl transferase c. Pseudocholinestrase d. Sulphotransferase

6. It has the same action of atropine but it produce less cerebral stimulation and more antispasmodic action to counteract gripping:
a. Hyoscyamine b. Scopolamine c. Hyoscine d. Eucatropine

7. They are widely used in horses and cattle as preanasthetic drug for rapid induction of anaesthesia, and transport, handling and control animals:
a. Meprobamate b. Xylazine c. Chloral hydrate d. Acepromazine

8. This rate is measured by the clearance of inulin or creatinine and not reabsorbed from the renal tubule.
a. Tubular reabsorption b. Tubular secretion c. Renal excretion d. Glomerular filtration

9. This drug is used to treat bronchial asthma, selectively, activates β_2-receptors and thereby relaxes bronchial smooth muscle with little accompanying undesirable cardiac stimulation:
a. Isoproterenol b. Epinephrine c. Norepinephrine d. Salbutamol

10. Injection of this drug s.c. in dog cause restlessness, panting, salivation, vomiting, defecation, decrease in body temperature and then deep narcoses:
a. Apomorphin b. Nalorphine c. Morphine d. Acetyl morphine

11. (..) are drugs which stimulate the liver cells to secrete more bile and are used to help digestion of fat in case of chronic liver diseases such as:
a. Magnesium sulphate b. Cincophen c. Cholecystokinin d. Sodium sulphate

VI. Choose the correct answer and fill in the spaces with suitable words:

1. Internal haemorrhage can be treated by (..............................) for the formation of prothrombin and factor VII but (.....................) is used in blood transfusion and treatment of thrombosis and blood sampling.

2. (....drugs) cause antitussive effect without depressing the CNS causing neither addiction nor narcosis, used for treatment of dry cough such as:
a. Codeine phosphate b. Dihydrocodeinone c. Pholcodeine d. Dextromethophan

3. It is a derivative of benzoic acid, which increase excretion of uric acid in the urine, and it also act as a tubular blocking agent for penicillin e.g.
a. Sulphinpyrazone b. Probencid c. Indacrinone d. Allopurinol

4. It used to stimulate addition of follicle growth, stimulate supperovulation, embryo transfere and stimulate the synthesis of androgen e.g.
a. L.H. b. F.S.H. c. Oestrogen d. Prostaglandins

5. (..............................) is the best drug used for treatment of myasthenia gravis in dogs.

6. When pKa of a drug equal the pH the rate of its ionization reach:
a. 15% b. 50% c. 75% d. 100%

7. It is a non catecholamine, rapidly absorbed from the GIT and powerful CNS stimulant, it increases mental and physical activities and decrease fatigue:
a. Ephedrine b. Mephenteramine c. Amphetamine d. Metaraminol

8. It has antipyretic and analgesic effect by inhibition of heat regulating center and decrease sensitization to pain receptors and not cause peptic ulcer:
a. Paracetamol b. Phenazone c. Sodium salicylates d. Ibuprofen

9. It is alkaloid, produces a competitive α_2 -adrenergic block, antidiuretic action, marked anaesthetic and aphrodisiac action:
a. Tolazoline b. Yohimbine c. Azapetine d. Regitine

10. These drugs inhibit cyclooxygenase and thus inhibit the synthesis of thromoxane, which is a powerful inducer of platelet aggregation e.g.
a. Acetyl salicylic acid b. Warfarin sodium c. Heparin d. Vitamin K

11. Drugs that release an antiseptic substance in acid urine are used for treatment of urinary tract infection such as in pylonepheritis, cystitis and urithritis e.g.
a. Formalin b. Sodium citrate c. Ammonium chloride d. Hexamine

12. It depletes tissue synthesis of Norepinephrine through inhibition of the decarboxylation of dopa and also decreases the concentration of dopamine and Norepinephrine in the CNS and peripheral tissues:
a. Reserpine b. Bretylium c. Guanethidine d. Aldomet

13. Its solution is not absorbed from mucous membrane and therefore suitable for infiltration and epidural anaesthesia and usually combined with adrenaline to prolong its duration of action
a. Amethocaine b. Cinchocaine c. Procaine d. Paintocain

VII. Mention only the mechanism of action of the following drugs:

No.	Drugs	Mechanism of action
1	Oximes as antidote for Organophosphorus toxicity	
2	Adrenaline as a bronchial dilator	
3	Pronethalol as Hypotensive drug	
4	Theophylline as A diuretic	
5	Metoclopramide as Anti-emetics	
6	Verapamil as Antiarrhythmic	
7	Dicoumarol as Anticoagulant	
8	Thiazides as Diuretics	
9	Papaverine during Asthmatic attack	
10	Isoxurpine as Uterine sedative	
11	Tannic acid as intestinal astringents for treatment of diarrhoea	

5.5 =



كليـة : ....

اسم الطالب

رقم الجلوس

امتحان دور : .... سنة

المـادة : ....

الفرقة : .... القسم : ....

مجمـوع الدرجـات

السـؤال	الدرجـة	المصحح
الأول		
الثاني		
الثالث		
الرابع		
الخامس		
السادس		
السابع		
الثامن		
التاسع		
العاشر		
مجموع الدرجات		

مجموع الدرجات (كتابة) : ....

ملحـوظة : على الطالب ان يكتب اجابته على الوجهين وان يجيب على الأسئلة المطلـوبة فقط ولن يلتفت الى الاجابات الزائدة عن المطلوب .

(مركز جامعة القاهرة للطباعة والنشر)

[101]

Cairo University
Faculty of Veterinary Medicine
Department of Pharmacology

Date: 4-1-2003
Course: 303
Time: Two hours(5)

General Pharmacology Examination For Undergraduate Students

I. Choose the correct answer and fill in the spaces with suitable words:

1. It decreases the secretion of all exocrine glands and used as preanasthetic drug before administration of volatile anaesthesia:
a. Adrenaline b. Gallamine c. Atropine d. Hyoscine

2. They are widely used in veterinary medicine as sedative, sedative-hypnotic and for induction of general anaesthesia for surgical operations. It act as depressant effect by increasing the binding of GABA to GABA-receptors on postsynaptic membrane:
a. Bromides b. Chloral hydrate c. Barbiturates d. Xylazine

3. (..) are compounds which precipitates protein of the intestinal mucosa to provide a protective barrier for the underlaying tissue such as:
a. Aluminum salts b. Calcium carbonate c. Charcoal d. Bismuth carbonate

4. Direct smooth muscle relaxants, elevate c-GMP which relax smooth muscles of blood vessels and used as hypotensive drugs such as:
a. Clonidine b. α-methyldopa c. Amyl nitrite d. Reserpine

5. Cats are deficient in special enzyme which metabolize drugs like paracetamol and the salicylates such as
a. Acyl transferase b. glucuronyl transferase c. Pseudocholinestrase d. Sulphotransferase

6. It has the same action of atropine but it produce less cerebral stimulation and more antispasmodic action to counteract gripping:
a. Hyoscyamine b. Scopolamine c. Hyoscine d. Eucatropine

7. They are widely used in horses and cattle as preanasthetic drug for rapid induction of anaesthesia, and transport, handling and control animals:
a. Meprobamate b. Xylazine c. Chloral hydrate d. Acepromazine

8. This rate is measured by the clearance of inulin or creatinine and not reabsorbed from the renal tubule.
a. Tubular reabsorption b.Tubular secretion c.Renal excretion d.Glomerular filtration

9. This drug is used to treat bronchial asthma, selectively, activates β_2-receptors and thereby relaxes bronchial smooth muscle with little accompanying undesirable cardiac stimulation:
a. Isoproterenol b. Epinephrine c. Norepinephrine d. Salbutamol

10. Injection of this drug s.c. in dog cause restlessness, panting, salivation, vomiting, defecation, decrease in body temperature and then deep narcoses:
a. Apomorphin b. Nalorphine c. Morphine d. Acetyl morphine

11. (...) are drugs which stimulate the liver cells to secrete more bile and are used to help digestion of fat in case of chronic liver diseases such as:
a. Magnesium sulphate b. Cincophen c. Cholecystokinin d. Sodium sulphate

II. Choose the correct answer and fill in the spaces with suitable words:

1. Some drugs can react with metallic ions in the cell forming inactive compounds and loses their effect on the cell.
a. By osmosis b. By replacement c. By physical action d. By chelation

2. Autonomic drugs are classified according to the autonomic receptors into:
a. Parasympathomimetics b.Cholinergic drugs c.Sympathomimetics d.Adrenergic drugs

3. The action of this amino acid at spinal interneuron is antagonized by strychnine or brucine lead to increase of spinal reflexes and tetanic contractions of skeletal muscles:
a. GABA b. Glycine c. Glutamic acid d. Aspartic acid

4. (..Sialagogues) is commonly used to increase the appetite in debilitating animals. It was called bitters or stomachics and it may be aromatic such as lemon peel and non-aromatic such as:
a. Carbachol b. Orange peel c. Physostigmine d. Nux vomica

5.(..effect) is the main effect of digitalis in which the heart rate is slowed by vagal stimulation and slowing the rate of conduction, these improves coronary perfusion during the extended period of diastole.

6. (......................anoxia) which is due to weak circulation of blood and so less oxygen reaches to the tissues. This happens in case of shock, after haemorrhage or in cardiac failure

7. It acts by competitive antagonism with aldosterone hormone so it cause increase Na^+ ions excretion but cause K^- ions retention e.g.:
a. Amphenone B b. Furosemide c. Spironolactone d. Acetazolamide

8. (..) is effective drug in cases of expulsion of foetus in uterine inertia, retained placenta and uterine prolapse.

9. Displacement of a drug from its binding sites by a second drug is clinically important, for example, Warfarin toxicity are attributed to concurrently administration with:
a. Steroid anti-inflammatory b. Flunixin
c. Hypoglycemic d. Muscle relaxants

10. From the advantages of parenteral administration:
a. Not suitable for insoluble substance b. Local irritation may occur at the site of injection
c. Rapid onset of drug action d. Can be used when the animal is unconscious

III. Choose the correct answer and fill in the spaces with suitable words:

1. These drugs prevent the access of acetylcholine to the cholinergic receptors of internal organs and exocrine glands:
a. Parasympathomimetics b. Parasympatholytics
c. Sympathomimetics d. Sympatholytics

2. These drugs produce GABA-like effects by increase GABA binding to its receptors lead to GABA-activated chloride channel remain open (prolong the activity):
a. Ivermectin b. Valporate sodium c. Picrotoxin d. Barbiturate

3. (...) is commonly used as preanasthetic medication as it reduces both the salivary and bronchial secretions.

4. Is a sodium+ channel blockers used to control arrhythmia of ventricular origin e.g.
a. Verapamil b. Nefedipine c. Disopyramide d. Bretylium

5. (..) They act by irritating the sensory nerves of gastric mucous membrane so stimulate reflexly the bronchial glands to secret more secretions such as:
a. Potassium iodide b. Tr. Benzoin c. Ipecacuanha d. Ammonium chloride

6. (.. diuretics) act on distal tubules and collecting tubules inhibiting Na^+ reabsorption and K^-excretion and promote uric acid excretion e.g.
a. Furosemide b. Amilaride c. Bumetanide d. Ethacrynic acid

7. (...) play a role in ovulation, luteolysis, uterine motility and clinically used to synchronize ovulation.

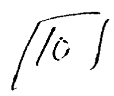
8. The ideal analgesic drugs for treatment of equine colic are non-steroid anti-inflammatory which act peripherally such as:
a. Phenylbutazone b. Methadone c. fentanyl d. Xylazine

9. This case occurs when two drugs combine with one another to form an inactive compound.
a. Chemical antagonism b. Physiological antagonism
c. Competitive antagonism d. Noncompetitive antagonism

10. Nicotinic action is blocked on the skeletal muscle by:
a. Lobeline b. Suxamethonium c. Small dose of acetylcholine d. Gallamine

11. It is a powerful cerebral stimulants, has a direct stimulant to myocardium, producing hyperacidity and improves digestion:
a. Caffeine b. Theophylline c. Theobromine d. Amphetamine

12. (...anti-acids) are insoluble alkaline salts that remain within the GIT and produced their anti-acid only in the stomach without releasing CO_2 such as:
a. Potassium citrates b. Magnesium trisilicate
c. Magnesium carbonate d. Sodium citrates



IV. Choose the correct answer and fill in the spaces with suitable words:

1. (..), These group of drugs increase heart rate and contractile power in acute heart failure (arrest or shock) e.g.
a. Dobutamine b. Gitoxin c. Strophanthus d. Squell

2. Drugs which liquefy bronchial vicid secretions by dissolving them, so reduce their viscosity to be easily expelled by coughing are called (...) such as:
a. Bromhexine b. Camphor c. Guaiacol d. Senega

3. (...) They act extra-renal on the myocardium acting as a cardiac stimulant and cause relaxation of smooth muscle of renal blood vessels leading to renal vasodilation and increase the glomerular filtrate with subsequent mild diuresis e.g.
a. Chlorothiazide b. Lasix c. Triameterene d. caffeine

4. It act as counter irritants and during its excretion cause irritation and increase blood flow lead to sex organs so sexual activation (aphrodisiac) e.g.
a. Yohimbine b. Alcohols c. Cantharidin d. Strychnine

5. The best drug used for regression of the follicular cyst in cows is:
a. $PGF_{2\alpha}$ b. HCG c. Oestradiol benzoate d. F.S.H.

6. These cases occurs when an animal requires increasing doses to produce the same effect
a. Cross-tolerance b. Selectivity c. Tolerance d. Specificity

7. It is unsuitable as therapeutic agent, but is sometimes used for treatment of peripheral vascular disease:
a. Adrenaline b. Atropine c. Noradrenaline d. Acetylcholine

8. This case occurs if a drug lacking an effect of its own increases the effect of a second, active drug $(0 + 1 > 2)$.
a. Synergism b. Potentiation c. Antagonism d. Additive drug effects

9. These are drugs considered a physiological mediator to acetylcholine, but are longer acting:
a. Muscarine b. Carbachol c. Mecholine d. Pilocarpine

10. These are drugs, which stimulate the depressed vital centers in medulla as respiratory and vasomotor centers and improve respiration and circulation:
a. Amphetamine b. Nikethamide c. Theophylline d. Leptazol

11. (.............................) Drugs in this group stimulate the dopaminergic receptors in the CTZ, which, in turn stimulates the vomiting center. The most commonly used emetic drug is:
a. Morphine b. Copper sulphate c. Zinc sulphate d. Apomorphine Hcl

12. It is the subject deals with absorption, distribution, biotransformation and excretion of drugs
a. Pharmacodynamics b. Therapeutics c. Pharmacognosy d. Pharmacokinetics

V. Choose the correct answer and fill in the spaces with suitable words:

1. This drug has selective action on the smooth muscles of the GIT and urinary bladder; it is mainly used as purgative, diuretic and ruminal tonic:
a. Carbachol b. Methacholine c. Arecholine d. Pilocarpine

2. This drug inhibits the presynaptic and postsynaptic inhibition produced by GABA transmitter on neuron and also closes the chloride channels of neuron:
a. Picrotoxin b. Barbiturates c. Coramine d. Cardiazol

3. This is a pathway (for drug transport) of limited capacity across most barriers, e.g. the epithelial lining of the surface of the body such as the cornea, gut and bladder
a. Aqueous diffusion b.Simple diffusion c. Facilitated diffusion d. Active transport

4. It is a powerful diaphoretic used to remove oedema and used also for treatment of glaucoma and in breaking down adhesion between iris and eye lens by alternate use it with atropine:
a. Physostigmine b. Pilocarpine c. Arecholine d. Neostigmine

5. The main site of action of these drugs is spinal cord where they block the action of inhibitory transmitter Glycine at postsynaptic neuron:
a. Amphetamine b. Brucine c. Ephedrine d. Strychnine

6. (...) are drugs which decrease bacterial fermentation by killing or inhibiting rumen microflora, so it decrease the production of gas such as:
a. Turpentine oil b. Carbachol c. Methylsilicone d. Kerosene

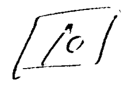
7. From the importance of binding of drugs to plasma protein
a. Decrease absorption from the intestinal wall b. Increase diffusion of the drug into the cell
c. Delay the drug excretion d. Increase the toxicity of the drug.

8. It is mainly used in treatment of myasthenia gravis, glaucoma to reduce intraoccular pressure and used alternately with atropine to break down adhesions between the iris and the eye lens:
a. Pilocarpine b. Prostigmine c. Eserine d. Bethanechol

9. Small dose from this drug act as nerve sedative and large doses acts as sedative hypnotic and general non-volatile anaesthetic (i.v. injection) in horse and donkeys:
a. Potassium bromide b. Chlorpromazine c. Xylazine d. Chloral hydrate

10. (..) are agents, which require metabolism before irritations are produced. The main members of the group are the anthracene purgatives as:
a. Phenolphthalein b. Senna c. Castor oil d. Linseed oil

11. Acetylation reaction carried mainly in the liver but also can be carried in the spleen, lung and GIT for these drugs:
a. Progesterone b. Meperidine c. Sulphonamides d. Pentobarbital



VI. Choose the correct answer and fill in the spaces with suitable words:

1. Internal haemorrhage can be treated by (.................................) for the formation of prothrombin and factor VII but (.......................) is used in blood transfusion and treatment of thrombosis and blood sampling.

2. (....drugs) cause antitussive effect without depressing the CNS causing neither addiction nor narcosis, used for treatment of dry cough such as:
a. Codeine phosphate b. Dihydrocodeinone c. Pholcodeine d. Dextromethophan

3. It is a derivative of benzoic acid, which increase excretion of uric acid in the urine, and it also act as a tubular blocking agent for penicillin e.g.
a. Sulphinpyrazone b. Probencid c. Indacrinone d. Allopurinol

4. It used to stimulate addition of follicle growth, stimulate supperovulation, embryo transfere and stimulate the synthesis of androgen e.g.
a. L.H. b. F S.H. c. Oestrogen d. Prostaglandins

5. (.............. ... .) is the best drug used for treatment of myasthenia gravis in dogs.

6. When pKa of a drug equal the pH the rate of its ionization reach:
a. 15% b. 50% c. 75% d. 100%

7. It is a non catecholamine, rapidly absorbed from the GIT and powerful CNS stimulant, it increases mental and physical activities and decrease fatigue:
a. Ephedrine b. Mephenteramine c. Amphetamine d. Metaraminol

8. It has antipyretic and analgesic effect by inhibition of heat regulating center and decrease sensitization to pain receptors and not cause peptic ulcer:
a. Paracetamol b. Phenazone c. Sodium salicylates d. Ibuprofen

9. It is alkaloid, produces a competitive α_2-adrenergic block, antidiuretic action, marked anaesthetic and aphrodisiac action:
a. Tolazoline b. Yohimbine c. Azapetine d. Regitine

10 These drugs inhibit cyclooxygenase and thus inhibit the synthesis of thromoxane, which is a powerful inducer of platelet aggregation e.g.
a. Acetyl salicylic acid b. Warfarin sodium c. Heparin d. Vitamin K

11. Drugs that release an antiseptic substance in acid urine are used for treatment of urinary tract infection such as in pylonepheritis, cystitis and urithritis e.g.
a. Formalin b. Sodium citrate c. Ammonium chloride d. Hexamine

12. It depletes tissue synthesis of Norepinephrine through inhibition of the decarboxylation of dopa and also decreases the concentration of dopamine and Norepinephrine in the CNS and peripheral tissues:
a. Reserpine b. Bretylium c. Guanethidine d. Aldomet

13. Its solution is not absorbed from mucous membrane and therefore suitable for infiltration and epidural anaesthesia and usually combined with adrenaline to prolong its duration of action
a. Amethocaine b. Cinchocaine c. Procaine d. Paintocain



VII. Mention only the mechanism of action of the following drugs:

No.	Drugs	Mechanism of action
1	Oximes as antidote for Organophosphorus toxicity	
2	Adrenaline as a bronchial dilator	
3	Pronethalol as Hypotensive drug	
4	Theophylline as A diuretic	
5	Metoclopramide as Anti-emetics	
6	Verapamil as Antiarrhythmic	
7	Dicoumarol as Anticoagulant	
8	Thiazides as Diuretics	
9	Papaverine during Asthmatic attack	
10	Isoxurpine as Uterine sedatives	
11	Tannic acid as intestinal astringents for treatment of diarrhoea	

5.5 =

